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This book contains 10 papers selected from those presented at the 1968 regional conferences of the NEA National Commission on Teacher Education and Professional Standards (NCTEPS) on differentiated staffing: "Teacher Education: Analysis and Recommendations," John Macdonald, chairman, Department of Education, Sir George Williams Univ.; "New Perspectives on Relevance in Education," Daniel C. Jordan, professor of education, School of Education, Univ. of Mass.; "Peopling Education," Laurence D. Haskew, professor of educational administration, Univ. of Tex.; "Images of the Future II," J. Lloyd Trump, associate secretary, National Assn. of Secondary School Principals; "Staff Support for Innovative Teaching," Eugene R. Howard, president, Nova Learning Corp.; "The New Teacher Education: Prospects for Change," James L. Fisher, vice president and dean for information and research services, Ill. State Univ.; "Where Are We Going and How Can We Get There?" Kevin A. Ryan, director, Master of Arts in Teaching Program, Univ. of Chicago; "Educating Teachers Through Differentiated Roles," Donald C. Roush, academic vice president, N.M. State Univ.; "Major Impediments to Educational Change and Improvement," John J. Horvat, executive officer, National Institute for the Study of Educational Change, Ind. Univ.; "A Possible Dream: A New Education and New Models of Teachers," Roy A. Edelfelt, executive secretary, National Commission on Teacher Education and Professional Standards. (JS)

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THE TEACHER AND HIS STAFF:
DIFFERENTIATING TEACHING ROLES

Report of the 1968 Regional TEPS Conferences

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PREFACE

Few ideas today are new and different, but there is revolution in the offing for education if the ideas in this book get wide application.

The invitation of the authors is for educators to think differently about teaching, learning, and school; to develop ways to help teachers and other personnel find productive, satisfying, effective roles in schools; to seek means of providing more individualized instruction and greater flexibility and freedom in the ways pupils are grouped and scheduled; and to increase the learning resources available by using a wider range of people, places, and things.

The content of this book is more than theory. The 1968 series of regional conferences of the NEA National Commission on Teacher Education and Professional Standards (NCTEPS), from which the material is drawn, culminated eighteen months of effort called The Year of the Non-Conference. One important project of the Non-Conference was identifying 220 demonstration centers — operational school and college programs which illustrate the concept of "The Teacher and His Staff." The published annotated listing of these selected centers (*The Teacher and His Staff: Selected Demonstration Centers*, 3M Education Press, 1967, Copyright 1967 by the National Education Association) should serve as an important source of information to supplement this volume.

The concept of "The Teacher and His Staff" has grown and expanded and in turn has developed new terminology, such as *differentiated staffing*, or *differentiating staff*. A number of organizations, notably the NEA Association of Classroom Teachers and the National Association of Secondary School Principals, have given impetus to developing the differentiated staff idea through conferences and publications. The NCTEPS has attempted to develop the teacher education and professional aspects of the concept.

The idea of differentiating staff is only just getting under way. It is supported or rejected by educators for a variety of reasons. We maintain that it deserves a careful trial, that it holds promise for both the improvement of instruction and the emergence of a mature profession of education.

We extend appreciation to our colleagues in the nationwide network of teachers associations and TEPS commissions who cooperated so willingly in the Non-Conference activities. Particular recognition goes to all those involved in the demonstration center programs, which continue to give visibility to "The Teacher and His Staff" idea. And we are especially grateful to Don Davies, Associate Commissioner for Educational Personnel Development, U.S. Office of Education, and to James L. Olivero, Director, Southwestern Cooperative Educational Laboratory, formerly executive secretary and assistant secretary respectively of the NCTEPS. These two men contributed in major ways to all the activities which led to the conferences represented by this book. We are indebted to them for an extraordinary spirit and style which make a revolution in education seem possible. We hope their aspirations will be fulfilled.

Roy A. Edelfelt
Executive Secretary, NCTEPS

INTRODUCTION

This volume is a set of ten papers selected from among those presented at the 1968 Regional TEPS Conferences on "The Teacher and His Staff." Each paper will stand on its own as a thoughtful analysis of some aspect of a major issue confronting the education profession — differentiating staff roles for more efficient and effective instruction. All the papers do, however, complement each other in many respects.

John Macdonald picks up the conference theme by noting that the doctrine of the omnicapable teacher leads to failure and disappointment followed by apathy and inertia. "Educational efficiency requires that teachers be functional specialists, not generalists," Macdonald says, and builds his case and recommendations for teacher education.

Daniel C. Jordan is concerned with relevance in education and points out that one of our problems is that we have not yet agreed upon what education is and what being educated means. Accordingly, he defines and discusses his own notion of education. He notes that while the public school system is the creator of positive and functional self-images for many people, in the ignoring or misjudging of human potential it is an inadvertent crippler of a great number of personalities. He makes assumptions about the nature of human potential and suggests criteria for relevance. For the future, Jordan sees new hopes in the opportunities for new models of teacher education and calls for continuing in-service education for all personnel as a regular part of the operation of schools, in collaboration with higher education institutions.

Laurence Haskew, concerned with "Peopling Education," says that "technology and systems approaches are recasting the productive roles of educators" and proposes a concept of change based on "repertoire development." The repertoire is inescapably distributed among a cadre of people. To Haskew, productive change is dependent upon our viewing "repertoire building as a component of *being* a teacher and staff."

In "Images of the Future II," J. Lloyd Trump envisions a new model of the secondary school principalship and describes four types of personnel supportive to the principal who are needed to organize and expedite instructional improvement. He holds that each position requires a unique background of preparation.

Eugene Howard, assumes the necessity of team teaching and proceeds to describe three kinds of professional support required for its success — auxiliary personnel, a variety of specialists, and mutual support by team members.

James Fisher discusses the prospects for change. After summarizing the current state of teacher preparation, he identifies and analyzes eleven trends of the "new teacher education" and projects considerable optimism for its future effectiveness.

Kevin Ryan attempts to answer the questions of where to and how by providing glimpses of the school of the future and the new teacher. He suggests unique types of specialists to support the classroom teacher, including inquiry, therapy, and research specialists. Ryan also lays out clearly a training-experience model of teacher preparation and wants in-service education to be a part of the regular teaching load.

Donald Roush picks up again on the major theme of "The Teacher and His Staff" and discusses the education of teachers through the use of the differentiated roles concept. This concept is in turn related to the idea of new careers whereby young people become professionals through a school-university co-op process. To Roush, the terms *preservice* and *in-service* miss the point of the need for integrated career preparation programs.

John J. Horvat's major concern is impediments to educational improvement. He cites as major obstacles the magnitude of the educational establishment, the absence of adequate rewards for change, and our lack of know-how in the processes of planned change. Horvat sees the need for a planned-change strategy.

The last paper in this volume details the need for a new concept of education and appropriate models for educating teachers. Roy A. Edelfelt questions eleven current assumptions and disposes of them as being largely outmoded. He then builds a design for a new school along with a description of the educational personnel needed to man it. He ends by posing some unanswered questions to elicit thought and action in remaking the education profession.

The papers which follow do not flow evenly as if they were parts of a book on a given subject. They do, however, give one a feeling of the forward thrust of teacher education. If the reader views them in this context, he can glean much from this report.

D. D. Darland
Associate Executive Secretary, NCTEPS
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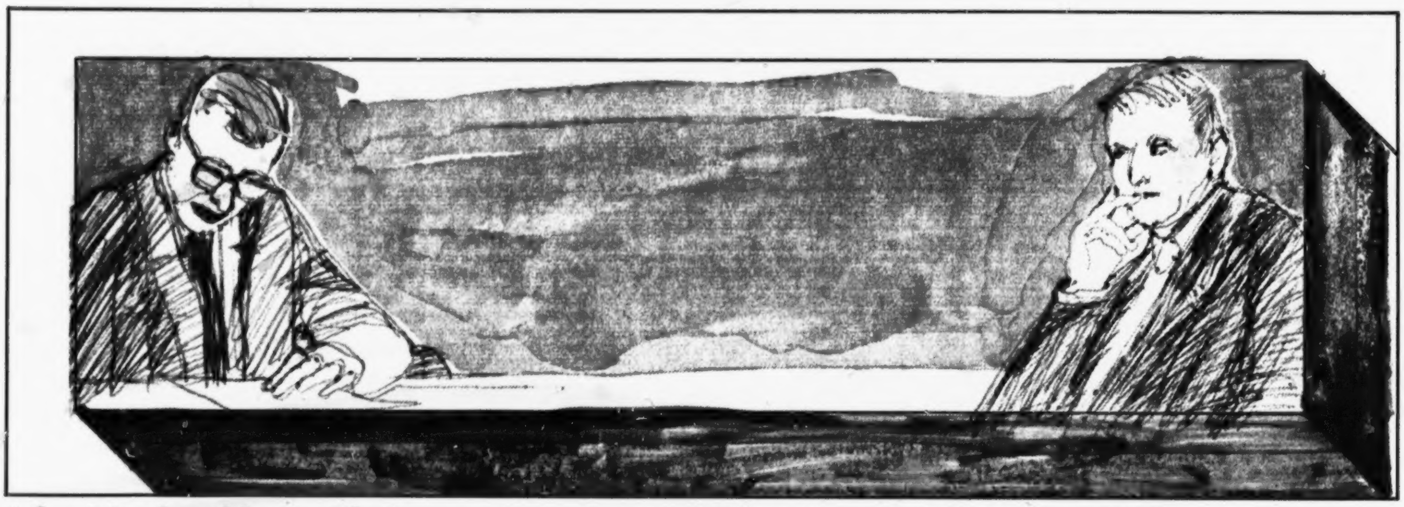
Director, Southwestern Cooperative Educational Laboratory

1

TEACHER EDUCATION: ANALYSIS AND RECOMMENDATIONS

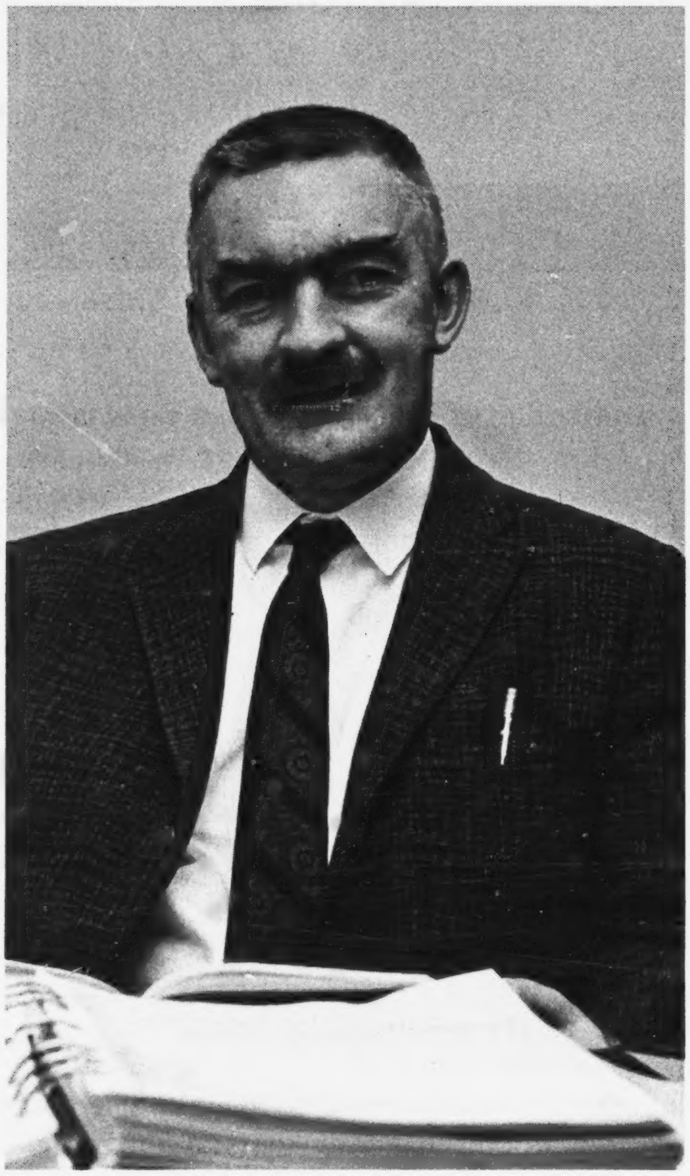


John Macdonald ■ *Chairman, Department of Education* ■ *Sir George Williams University* ■ *Montreal, Canada*

A great many earnest and conscientious people are now engaged in the planning of teacher education programs; and if hard work were any guarantee of success, the new era of education, which nearly everybody seems willing to promise the next generation of learners, would be almost upon us. However, anyone who is acquainted with the history of educational reform in this century will not easily be recruited as a member of the cadre of professional optimists who, in the guise of research and development personnel, will shortly be explaining to audiences of half-convinced, half-bewildered teachers that an ultimate model for teacher education has at last been designed. There is so much theoretical and other lumber to be cleared away and so little sign of its being recognized as lumber that sanguine assertions of this nature can scarcely be justified even as inspirational talk. Therefore, although I am aware that a touch of pessimism is almost as unwelcome in a gathering of educators as in a sales meeting, I feel that my moral duty is to shun the featureless Utopian vision of the typical conference presentation and to confront the reader with a number of serious problems that lie in wait for those who wish to reform teacher education.

The first problem is that the knowledge of which educators presently dispose makes the attempt to set out the components of a preferred teacher education program a dangerous and nearly futile exercise. The exercise is futile because of our inability to validate any single element in the combination, even student teaching, by reference to subsequent teacher performance. It is dangerous because, unless we are intellectually honest to an unusual degree, we may be led to substitute consensus for knowledge, to mistake selection for preparation, to prefer legitimation to substantiation. At present, almost nothing is known, as scientists understand knowledge, about instruction and the teaching process; both descriptive and prescriptive models are of a most primitive sort. Thus, the source of ideas for teacher education programs is not evidence but an untidy melange of traditions, the untrustworthy anecdotes of experience, and insights which, however brilliant, are unlikely to survive institutionalization.

John Macdonald



It is only fair to say that many educators, in the calmer moments when they are not warding off criticisms of schools and teachers, will concede that teacher education rests on shaky foundations. But these statements are not intended for public consumption and, hence, their force is negligible. Until there is clear professional acknowledgment that the only satisfactory basis for a teacher education program is the same kind of massive and carefully planned research that supports contemporary industrial development, at least in the newer and more highly rationalized industries, followed by general public acceptance of the same fact, developments in teacher education will be restricted to the periodic unveiling of "innovations" which, like many educational novelties of the past, will live out short and unhappy lives. As Michael says:

> *Small efforts and hestitant programs simply won't do. . . . Almost any socially worthwhile program will take unprecedentedly large investments in humans and hardware, to say nothing of dollars . . . a relatively radical consideration for Americans will be a growing requirement for longtime planning . . . planning an education system adequate for the future will mean research on learning, teacher selection, preparation, and so on, which will have to be initiated years before it is applied in the classroom. . . . Hence, in some parts of public and private institutions,*

there will be greater need for and application of powerful rationalized methods for initially assigning program priorities, for evaluating program progress, and for terminating or modifying programs when they no longer merit high priority. . . . As a result, what the professional does and how he or she does it will become a more precise and more rationalized activity with an increasingly rationalized state of mind associated with it. [1]

I do not wish to have it thought that in what I have just stated I am following the usual line of educators in retreat from difficult decisions. My assertion that more research is necessary in teacher education may be commonplace, but it is not meant as a platitude, nor do I intend to employ it as an excuse to avoid the discussion of serious matters. The special tools of research have not made traditional intellectual analysis obsolete — indeed, such tools cannot be used properly without it — and much can be said about teacher education by resort to the ordinary methods of rational thinking formally available to all of us but not commonly taught in seminars on research techniques. While research of the kind I have described is, then, desperately necessary if teacher education is ever to pull itself out of the swamp of well-intentioned mediocrity, the mere statement of need does not fulfill my responsibilities here. Thus, in what follows, I will be expressing my own views (which I hope are logically defensible but are not necessarily supported by research) of some of the major difficulties of teacher education and their possible solutions.

The most serious problem of teacher education is the inability of preparing institutions to validate their programs and the consequent tendency for these programs to become instruments of professional legitimation. There are other problems, however, of almost equal importance, and one in particular seems to me to warrant close inspection: the way in which teaching is currently defined in teacher education institutions and elsewhere.

No other profession in its training practices has married assumptions about the fate of the practitioner so curiously as teaching. On the one hand, the practitioner is seen as an individual with unique, unshared, and frighteningly comprehensive responsibilities, in support of which his personal resources will be severely tried. He is seen, that is, as a heroic figure; and, of course, the hero-practitioner is a recurring theme in the lore of all the professions, from the detection of crime to the healing of the sick. He is also seen, however, as one who will enter a world in which the essential choices that determine the nature of work have already been made, so that he, too, becomes a follower of the single common path, or, to use a simple term of similar meaning, a functionary. Such assumptions are not natural partners, and teacher education institutions will continue to suffer from a paralysis of the will to action for so long as the strange juxtaposition continues.

Furthermore, although we may surmise that, given a choice, teacher educators would choose to be the mentors of heroes, this preference, whatever its attractions, cannot inspire reform. To say that teachers ought to be hero-practitioners is to fail to notice the subtle ways in which the concepts of teacher-as-hero and teacher-as-practitioner are dependent on each other. It is the language of heroic endeavor that provides the screen of rhetoric behind which the makers of functionaries can work undisturbed, that furnishes teachers and administrators with a vocabulary of defense against lay criticism, and that serves as a harmless target against which disgruntled practitioners can discharge their wrath. There is, indeed, good reason to suppose that without the protection of the heroic myth teachers could no longer be prepared as functionaries. If the reality of teacher education requires a justificatory myth, however, so also does the myth require a grossly inferior reality. Many of the more exalted definitions of the ultimate teacher are exceedingly vulnerable to intellectual examination and survive as presumed guides to action only because their creators have been able to force a choice on educators between a transcendental view of teaching and a hypothetical philistinism which is presented as the natural philosophy of the untutored practitioner.

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[1] Michael, Donald N. "Some Long-Range Implications of Computer Technology for Human Behavior in Organizations." *American Behavioral Scientist* 9: 29-35; April 1966.

Thus, although theory and practice in teacher education reinforce one another, they do not do so in accordance with the rules described in textbooks of methodology, and the relationship is one which undermines even the most determined efforts to introduce reforms. Yet no way of looking at any aspect of the world can win adherents unless it possesses a kernel of rationality; and there are elements in both the teacher-as-hero and teacher-as-functionary concepts which, once extracted from their present settings, can be used to generate a more imaginative model of teaching. In fact, education cannot easily be denied a heroic purpose (although the desire, so prevalent in contemporary society, to affirm that schools and universities are capable of every task is less a tribute to their past achievements than a revelation of the pervading lack of confidence in political institutions). The error is to assume, as does the typical exponent of the teacher-as-hero archetype, that this purpose is fulfilled as a product of the individual struggles of a multitude of teachers, each thrown on his own resources and gravely assured of his total responsibility for the destiny of the children under his charge. And however uninspired a definition of teacher-as-functionary may seem, it does recognize that teaching is, after all, a job like any other, with specifications which, in principle at least, can be displayed to neophytes and curious visitors.

What is badly needed in teacher education, then, is an interpretation of teaching which will allow teachers both to serve a job without being reduced to the level of functionary and to undertake demanding tasks as a matter of course without being forced into a crusading posture. Teachers are now invited to refer themselves to an omnicapable model, at once intelligent and affectively warm, knowledgeable and tolerant, articulate and patient, efficient and gentle, morally committed and sympathetic, scholarly and practical, socially conscious and dedicated to personal development, fearless and responsible. They are told that they must be specialists in an academic discipline, masters of the techniques of presentation, adept class managers, artful motivators, skillful diagnosticians, ingenious remedial workers, imaginative curriculum designers, eager inquirers, efficient administrators, helpful colleagues, widely interested citizens, and loving human beings (the last being a new and very modish injunction). It is precisely this doctrine of the omnicapable teacher which creates the two competing yet symbiotic versions of the teacher behavior already described. (While it leads naturally and inevitably to the recommendation of heroic effort, it sets standards of achievement which no teacher can attain and thus also leads first to failure and disappointment and then to apathy and inertia.) The doctrine, which may once have served education well (its inspirational potentialities are obvious), must therefore be discarded in favor of conceptualizations which define teaching in a more unitary and coherent fashion.

These conceptualizations, besides avoiding the difficulties already listed, may bring unsuspected benefits in their train. Many sound initiatives in education are seriously hampered by the lack of sympathy between theorists and practitioners. And although it can be argued — in my view correctly — that the theorists, by their espousal of inadequate doctrine, are largely responsible for this unfortunate situation, such a judgment should not commit us to uncritical acceptance of the "viewpoint of the practitioner." Even if much of what is taught in teacher education institutions has no functional value for students, there are still grave objections to the reification of current practice, which owes its origin to what I have called elsewhere the "operational doctrine" — a simple set of rules, never fully articulated and largely communicated by informal discussion, which teachers can use to handle with dispatch most of the problems that come their way. The operational doctrine, just like its competitor, the theoretical doctrine of the teacher education institution, purports to explain the reasons for child behavior, to present a systematic account of learning and motivation, and even to expound the purposes of education, and is thus equally vulnerable to analysis. It is, for example, an article of faith for many practitioners that teacher education programs would be improved if students spent more time "on the firing line." Of course, the metaphor is a curiously unsuitable one when used in this context, because it describes precisely the opposite of what happens in military training except under conditions of extreme urgency. Nevertheless, its use is interesting because it demonstrates a singular faith in the virtues of "learning by experience" (which is readily understandable, since such a faith is the only source of confidence for the omnicapable teacher) and shows that teachers share the very widespread popular and anti-intellectual views about the nature of learning. Any redefinition of teaching that is worth taking seriously will reject approaches that find their natural expression in this sort of language; and it seems likely that theorists and practitioners will be brought closer together, not by a special gesture of abasement on the part of theorists (their recognition of the "obvious truths" of the operational doctrine, for instance), but rather by a joint adherence to new designs initially disliked by both groups.

In pursuit of such designs, I shall now offer a brief general critique of contemporary edu-

cational practice with the intention of establishing a framework for the later discussion of teacher education.

The idea of the omnicapable teacher is now a piece of outworn ideological baggage which has to be left behind if schools are to exemplify that efficiency, the demand for which, although uncertain, fluctuating, and easily distracted, is the authentic voice of contemporary society. Educational efficiency requires that teachers be functional specialists, not generalists. The concept of functional specialization, although widely accepted in science and industry (the degree of acceptance is in fact a measure of the sophistication of a given enterprise), is a radical one in educational circles, which have not yet committed themselves fully even to subject specialization. What it means in practice is that teachers are employed solely in the capacities for which they appear to be fitted by preparation, endowment, and personal preference. Thus, they may work with individual children, with small tutorial groups, with large tutorial groups, with seminar classes, with large classes, or in a mass-presentation setting. They may diagnose, counsel, carry out formal instruction, specialize in remedial teaching, or engage in any of the other tasks now left to the historical teacher. They may even prefer a purely supportive function, for example, the preparation of teaching materials. Whatever their role, they will not readily change it. They will belong to teams whose membership will be representative of different specialties and will be responsible for the general management of instruction. (Just as educational efficiency implies functional specialization, so does functional specialization, once the task reaches a certain level of complexity, seem to imply a team approach to organization.)

The traditional pattern of teaching, then, is an inheritance to which we should bid farewell. There are, however, other governing concepts in contemporary educational practice which are equally sound candidates for retirement. The concept of the school class, for instance, while in appearance merely the other face of the same coin, has curious aspects of its own, the examination of which is not exhausted by frequent complaints about the lockstep and the age-grade system. At one time, of course, there was no alternative to an arrangement which saddled teachers with the constant presence of large and heterogeneous groups of children and forced children in turn to scrabble for attention and information like fowls in a barnyard. That these days of shared privation are still fondly recalled by a host of middle-aged and elderly North Americans is an excellent example of the persistent human tendency to invest youthful hardships with a cloak of wistful memory. The educator who is able to penetrate to the underlife of school systems can easily muster four serious objections to the use of classes as basic instructional units. First, the developing infrastructure of the class functions as a behavioral sink, constantly draining energy from the instructional process. Second, small-group behavior is incapable of being assimilated to the goals of instruction, and the attempts of group dynamics theorists to master this dilemma logically culminate in a political definition of teaching. (A good account of the social rationality characteristic of small-group behavior, and its essential conflict with other types of rationality, can be found in Diesing.[2]) Third, the pressures of class management distort teaching, emphasizing its charismatic elements. Fourth, the class acts, within the school system, as one of the subtle governors of educational change, pulling teachers back to the single common path when they stray in the direction of experiment.

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[2] Diesing, Paul. *Reason in Society*. Urbana: University of Illinois Press, 1962.

Some notice must also be taken of the more ordinary comments made by educators about the class system of instruction, since these also have validity. It is frequently asserted, for instance, that the range of achievement, particularly within an unsegregated class, places an impossible burden on teachers and that in the class setting the needs of individual children may go unsatisfied. These tend to be seen as *difficulties,* however, which may be circumvented by an appropriate juggling of class membership and by a careful insistence, in lectures to teachers, on what is due the individual. In contrast, I am prepared to maintain that classes are already anachronisms in the best contemporary schools and can only be defended on grounds of administrative convenience. Although we do not yet possess that coherent theory of instruction of which Bruner speaks, the emerging consensus of educational discussion more and more suggests that learners are better served by membership in a variety of instructional groups which are differently designed for different purposes, range in size from very large to very small, and often have a brief life span. Some may fear that this approach to instruction leaves out an important component of school life — the rough democracy and sociality of the typical classroom; but even if they are correct in their assumptions, there is no reason why, by making special provision for social mingling, schools cannot arrange to inherit these residuary virtues.

The teacher-in-his-classroom, for so long the ultimate particle of educational thought, has now been analyzed out of existence. The third member of the natural triad — the school — remains to be examined. The point most worth making here is that, just like the omnicapable teacher and the traditional class, the school, too, may no longer qualify for conceptual support. Schools have typically been built as tributary edifices to the great god Proximity, who has to be placated if learning and instruction are to prosper. But proximity is an expedient, not a necessary feature of educational planning, justifiably weighted with priority only so long as it remains the primary support of communication. Even a cursory glimpse at the world outside the school nowadays tells us of an increasing divorce between the two, and the continuing preference for the erection of school buildings in deference to a proximity model is an unflattering example of the gulf between avant-garde educational talk and torpid educational practice. As Lloyd says:

> *The immediate architectural and planning conclusion* [*of discussion of school design*] *. . . is that the communications system operating within a school is no longer one of proximity but is now by means of a systematic network. The result of this is that the comprehensive school, which hitherto has always been a massive complex of buildings, can now be dispersed into modules. . . . There is no technical reason why modules need to be in any kind of proximity at all and one could envisage a situation where a module might be in, say, Pimlico. . . . Flexibility would have a high order of priority as a permanent feature . . . the use of equipment of a mobile, flexible, and plug-in nature is accelerating rapidly, but*

> *we are continuing to press it into massive permanent buildings. . . . Flexibility . . . will change the fabric, the spaces, and the appearance of the building . . . even, say, in annual cycles. . . . We can foresee a future where the building becomes superfluous.*[3]

The dissolution of the bonds of proximity means the disappearance of the school as an identifiable, semipermanent architectural unit associated with a particular area of ground. (Indeed, there is no special reason why modules should not be transportable or interchangeable.) To match this new flexibility teachers must cease to think of themselves as daily inhabitants of a settled working space or as followers of a habituated employment routine. The full psychological consequences of the disjoining of work and place of work, so closely associated in human experience, are impossible to predict. The likelihood is, however, that such a separation can be borne originally only by those with marked ego strength and that work will be interpreted as a means of expression rather than a burdensome necessity.

The traditional views of teacher, class, and school on which, in more or less enlightened form, teacher education has so far depended have now been explored and, for one reason or another, rejected. Some other attributes of the discernible school, trivial only by comparison, also deserve mention. To begin with, it should be clear that teachers, particularly those capable of being trained to a reasonable level of competence with the instruments likely to be at our disposal in the near future, will remain in short supply during the coming period of vital change. Even from a simple economic point of view, then, it does not make sense to allow them to discharge their energies in tasks which, while not necessarily menial, are of trifling professional consequence. Of course, many of these tasks, so deeply embedded in customary teaching patterns, will appear in true perspective as the old definitions of sound educational practice lose their hold, and time will impair the relevance of the remainder. However, there is another set of tasks, justifiable enough in professional terms, the responsibility for which, under the guidance of a policy of rational allocation of resources, will become much less the exclusive preoccupation of teachers but will not pass altogether out of their hands. The reference here, as might be expected, is to those aspects of instruction which will come within the jurisdiction of machines. At present no firm line can be drawn which distinguishes between the area of teacher competence and the area of machine competence, and the popular equation of the machine with simple routine instruction, although sometimes repeated by educators who ought to know better, does not rest on substantial evidence. About all that can be said, then, is that we are approaching an era when instruction will be dispensed, not by individual teachers depending on chalk and talk, but by *man-machine systems* (an expression that is intended to convey more than the image of a teacher fumbling with a tape recorder). Such systems are already under study in noneducational settings but have so far received little explicit attention from schoolmen. In spite of this comparative neglect, one effect of the introduction of man-machine systems into education is discernible even in our present state of ignorance: the student for whom the teacher is no longer the only or even the main source of information is forced to take a more personal responsibility for his work. In other words, the self-service principle, now essentially confined to the special enclave of the library, will penetrate the entire instructional complex.

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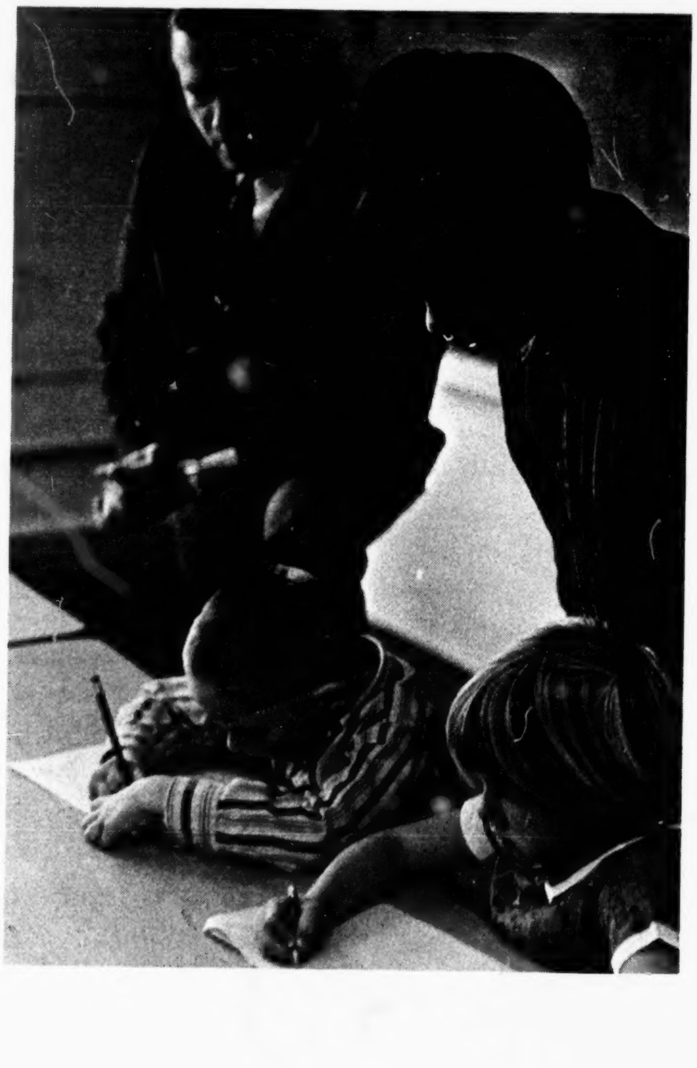
[3] Lloyd, J. W. (principal, Architectural Association, University of London). "The Flexibility in Educational Environment." *Systematics* 4:315-18; March 1967.

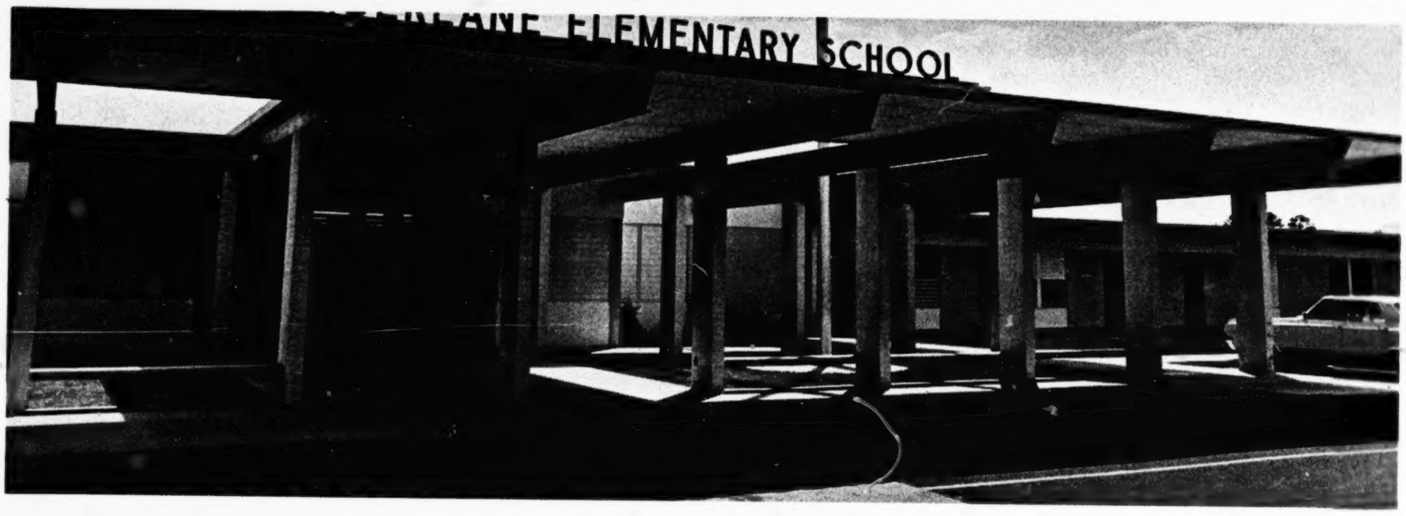
My intention in the last few minutes has been to show that it is by no means impossible to extricate from contemporary trends a useful general account of what may be called the discernible school. Such an account is a necessary point of reference for the discussion of reform in teacher education, a topic to which I now return.



What functional specialization means for teaching is the mapping out of instruction into a number of separate and relatively distinct areas, each with its own population of differently prepared and differently active staff. Function, in this context, should be construed as a multidimensional concept, and the most obvious dimensions can easily be listed. First, specialization can be defined in terms of the nature of the interaction between teacher and student (the diagnosis of inadequacies, the remedial concern, the presentation of basic materials, the guidance of discovery, the conduct of free discussion are examples that come quickly to mind). Second, it can be defined in terms of the size (and thus the changing characteristics) of the instructional unit. Third, it can be defined in terms of the immediacy of the relationship with concrete teaching situations. (Thus, for instance, the system may best be served if a teacher spends his time in the design and preparation of testing instruments or in curriculum evaluation.) In addition, of course, some account must be taken of the types of specialization already granted recognition: specialization by teaching subject and by age of child.

Some conclusions can readily be drawn from this brief explanation of functional specialization. That the concept will not tolerate the continuing existence of primitive categories like "elementary teacher" or "history teacher" (to say nothing of "classroom teacher") is plain enough and is also a logical corollary of earlier discussion. A natural question presents itself, however: What will be the content of the new categories? From the hints already given, a reader of analytical bent might easily construct several thousand different job descriptions. While such a multiplicity of task definitions is a just reflection of the complexities of the instructional process, and certainly the school of the future will make room for extreme varieties of specialization uncherished by its predecessor, it should be obvious that no teacher education program can cater for all the required job specifications, at any rate not during the period of initial preparation which carries a teacher up to the first level of professional qualification. If the analogy of current practice is followed, the problem will be met by reserving the early years of preparation for the production of a group of "core" specialists (so that — to give an illustration of the degree of specialization sought — a teacher may emerge qualified to undertake diagnostic and remedial instruction in elementary mathematics) and by establishing secondary and tertiary training cycles to prepare teachers for more narrowly defined sets of tasks. But although this solution makes formal sense and will probably be adopted in one form or another, there now are technological capabilities within the reach of teacher education which may increase the hypothetical range of specialization at the primary level of preparation far beyond all orthodox prediction. Any program which adheres to the old principle that communication implies proximity will never stray far from a philosophy of general preparation, no matter how fragile its theoretical supports, since an upper limit for the concentration of resources in a single establishment is quickly reached, and there are some resources the independent possession of which no establishment can justify. (It is also true that bigness, in the direct physical sense, generates, perhaps inevitably, an inflexibility of functioning which interferes with job performance.) For a program that is able to break this connection, on the other hand, the definition of feasibility is completely transformed, and a new freedom of access to communication networks makes possible the service of the most esoteric specialties.

Whatever the degree of functional specialization eventually permitted at the primary level of preparation, four consequences of the adoption of a functional approach to teacher education are readily evident. To start with, teaching, although defined more intensively and explicitly than before, also acquires wider generic potential, so that tasks which were formerly thought of as somehow falling outside the definition, as being secondary or ancillary or in a different profes-

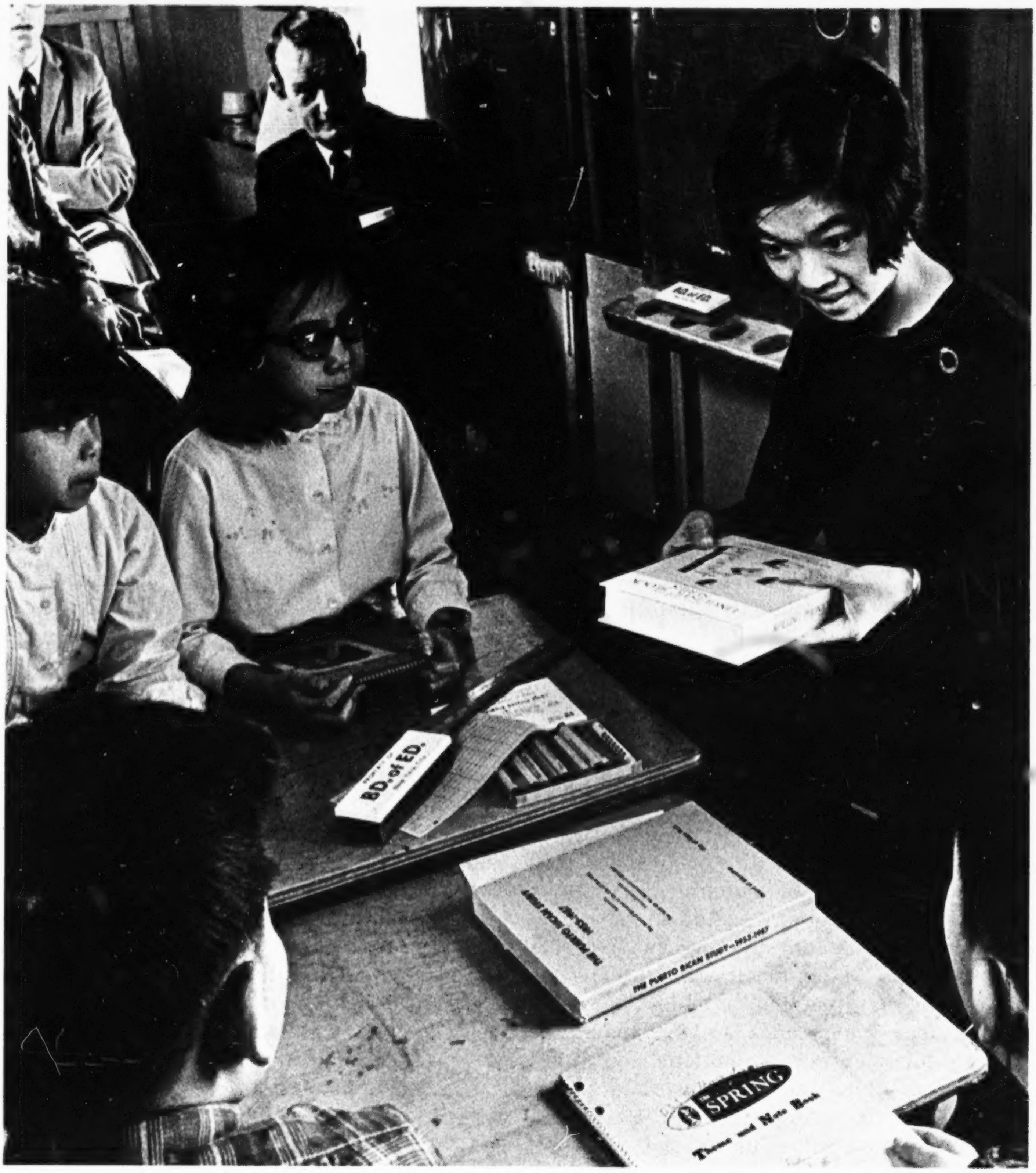


sional category, are now included within it. The reader may be helped to understand this point if, for example, he considers what "administrative" responsibilities might be assigned to an instructional team. Second, the current practice of releasing teachers for service after a year or two of training is inhibited, since the preparation of specialists is manifestly a lengthy and difficult business (although in the system being described, a new function — that of the subprofessional — will appear for which training provision also has to be made). Third, the integrated degree, of which the B.Ed. is a primitive exemplar, replaces the academic degree followed by a year of teacher education (a preparation design which rests on an inadequate concept of specialization). Fourth, what is now called the professional component of the teacher education program acquires much more significance (so much so that distinctions of character between different parts of the program, except possibly as described by the use of the term *clinical*, borrowed from medicine, will be difficult to substantiate).

In educational as in other circles specialists are often the object of suspicion and even of some contempt, the legend being that their "narrow" training fosters an incapacity to take what is described as "the wider view" or is inimical to the nurturing of human kindness. While undoubtedly there is evidence to feed these attitudes, they owe more than is commonly recognized to strains in our Anglo-Saxon ideological heritage (to still influential platonic notions about banausic labor, for instance, and an aristocratic distaste for science, examinations, and useful knowledge which, although overlaid in recent times, still emerges at intervals to corrupt our judgment). The special need not detract from the general; that it frequently does is more of a comment on standard preparation patterns and on the ways in which the terms *special* and *general* are interpreted than on the principle of specialization. There are strong reasons, indeed, for supposing that to make generalists one must first make specialists, even though traditional practice follows precisely the opposite route. The question may be asked, too: How does a man get a good grip on the modern world, or even on a substantial part of it, without a firm knowledge of a special field?

A statement of the principles of functional specialization does not qualify as a prospectus, and any teacher education institution which accepts these principles will discover that they do not lead easily and automatically to a listing of program details, since these must also be seen as falling within the province of team decision. If functional specialization is worthy of consideration as a model for teacher behavior, it must also be taken seriously as an approach to program design. Certain aspects of the training of functionally specialized teaching teams do, nevertheless, lend themselves to early comment. Something can already be said, for example, about the composition of teams and the major differences between their preparation patterns and those imposed on the historical teacher.

Although the notion of teamwork, in the narrow sense, is so new to education that little reflection has taken place on the possible composition of instructional teams, contemporary educational thought has rediscovered the subject, or (to use a fashionable term) discipline, and its use as an organizing principle has a certain attractiveness. Thus we can conceive of a team as consisting of a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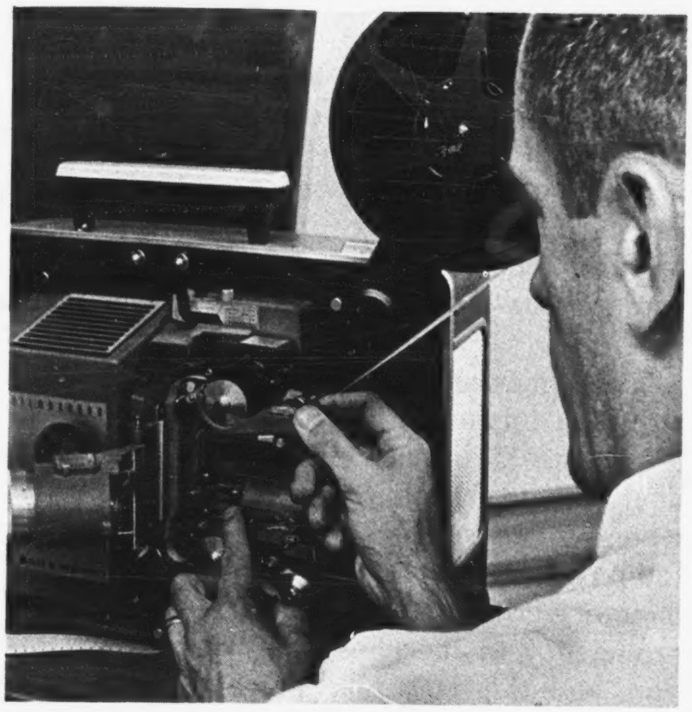
group of functional specialists in the teaching of a discipline. But this solution, although it has the merit of simplicity, underestimates the scope of the problems that will be uncovered by the team and its demand for expert counsel. A more studied approach to team composition, then, will make provision for at least three categories of membership: (a) semipermanent "core" members, the functional specialists in the teaching of a discipline who have already been mentioned (a group which may include teachers of children of all age levels); (b) "floating" members, some of whom may remain with a given team for a lengthy period while others move from team to team or perhaps belong to several teams at the same time (the person who naturally enters this category will possess a qualification that gives him interdisciplinary status and may be anyone from a child therapist to an expert in research methodology); (c) subprofessionals, who are probably better described as associates than as true members of the team but whose voluntary interest in team activities will be sought. The effect of this extended membership will be to grant the team easy access to whatever resources it may require for the conduct of instruction and also, precisely because of the range of access, to buttress what has to be its semiautonomous role within the educational structure.

The necessary complexities of team instruction impose a novel set of preparation requirements on teacher education. Each student should become a member of a team when he has reached an appropriate stage of the primary preparation cycle. The most satisfactory criterion of appropriateness is basic proficiency in the chosen area of specialization, and this may take longer to attain for some students than for others either because of differences in rates of progress or because of differences among specialties. Once the membership of the team has stabilized (there are bound to be many provisional assignments in the early months), the student should continue to be associated with the team for the remainder of the cycle. Although specialist instruction will continue until the end of the preparation period, arrangements should also be made for teams to meet frequently for group instruction, and what is now called student teaching should be redesigned to conform to team principles. There should be attached to each team a special staff of instructors and consultants at least one of whom should be especially competent to deal with problems of team functioning, including those which are likely to appear in the preparation of any team, whatever the official definition of task. Study of these topics which now come under the heading of "Educational Foundations," and which as currently taught have an unfortunate but understandable tendency to become interesting in proportion to their disengagement from the obvious relevancies of classroom practice, should be postponed until the final stages of preparation both because their importance will become obvious to the student only as team consciousness matures and because the best preparation for a study of general ideas is detailed knowledge of a special field.

Such a preparation scheme may have points of appeal even for the reader who is not fully convinced of the advantages of functional specialization. A question which must occur, however, is, How is student teaching to be redesigned? This question can be answered, but not without some comment on accepted methods of providing classroom experience for the student teacher.

Contemporary student teaching is founded on the notion of apprenticeship, which carries with it the implication that imitation is ultimately the basis of skilled performance. So long as such practice continues, teaching will not escape definition as a craft, no matter what attempts are made elsewhere to represent it as an intellectually conscious task. Indeed, the main reason for the characteristic failure of methodology and student teaching to come to terms with one another may be the lack of a common archetype. Moreover, although contemporary practice is guided in part by the laudable desire that students should become closely acquainted with the concrete details of instruction, a more imaginative mode of fulfillment is now conceivable; since proximity and communication are no longer indissolubly linked, students need not be physically present in order to learn about teaching. I am perfectly willing to argue that there is no substitute for raw experience — but, when sophistication allows it, as the capstone of learning, not as the foundation. In contrast, the preparation of teachers for the discernible school will rely heavily on the use of devices for distant communication. Recent advances in fiber optics, in particular, open up exciting analytical possibilities in the realm of training films and video-taped demonstrations and will in time give live telecasts a new dimension of authenticity. (Indeed, the viewer will be introduced to a new experience — that of total *observation.*) However, preparation programs which are always designed with reference to identifiable physical events, whether occurring in the immediate presence of the student or at a distance, lack that full measure of hypotheticality which is a desirable element in the preparation of teachers who will perform intellectual tasks. Thus, direct visual presentation, and the implied discussion and analysis, should be supplemented by the use of simulation techniques. So far, the employment of these techniques has been largely confined to professions more closely associated than teaching with modern scientific and technological prowess, but with computer assistance, education games can become as manageable as war and business games. There are, of course, less recondite approaches to simulation than the game, some of which are already being tried by those responsible for the training of educational administrators. Nevertheless, the game seems likely to become among the most valuable of training instrumentalities, providing as it does both a basis for the assessment of individual competence and a medium for team competition.



At some time, and preferably at the final stage of the preparation cycle, students will be sent out to teach — that is, each team will be given active teaching responsibility, though still under the guidance of the same staff which conducted their earlier training. Association with an established instructional team may also be advisable, but it ought to be remembered that the students being discussed will have received a much more intensive preparation than the students now enrolled in teacher education institutions and should be using this period of direct contact with practice as an opportunity to exercise in autonomous fashion skills which they have already acquired. The term of practice should be long enough to enable the team to undertake a major teaching assignment and may be of the order of six months.

I am fully aware that most of these suggestions and recommendations deserve more extensive treatment. However, I believe enough has been said in this examination of teacher education both to show the kinds of questions that teacher educators ought to be asking and to elucidate the most important consequences of the choice of one major answer. That much of what constitutes the usual matter of debate on the subject of teacher preparation has been completely ignored should not be held to designate a judgment of total worthlessness. But if this is what is discussed, then nothing else will be, as has been laboriously demonstrated in many teacher education conferences. There is a time for queries which reflect the immediate daily concerns of the practitioner; and a distrust of the vague rhetoric which passes muster as philosophy too easily among teacher educators is, in its way, a sign of health. Nevertheless, whether we like it or not, the most pressing candidates for the attention of teacher education now are questions of purpose, philosophy, and definition of ends, and posterity will not excuse their neglect.

16

NEW PERSPECTIVES ON RELEVANCE IN EDUCATION

Daniel C. Jordan ▪ *Professor of Education* ▪ *School of Education* ▪ *University of Massachusetts*

Whatever else we expect public school education to do, it should, in collaboration with other institutions, play a primary role in the maximal development of the human resources of a society and help to create a disposition for the deployment of those resources for the mutual benefit of men everywhere. Given the current world situation with its population explosion, armed conflicts, the possibility (some say the inevitability) of a nuclear holocaust, racial struggles, extensive urban and rural poverty, an accelerating crime rate, mental breakdown on the increase, widespread political corruption, ineffective community organization, and pervasive economic insecurities, the gap between what education is currently doing to develop human resources and to deploy them properly and what it could and should be doing is a yawning chasm of almost imponderable dimensions.

Let us not be under any illusions about the job of closing that gap. We may as well accept the fact that it will take courage and stamina. On the basis of past experience, we can expect any plan to bridge that kind of a gap to appear overwhelmingly impossible and even downright inappropriate in the minds of educational administrators, incomprehensible and threatening for teachers, traumatic for curriculum specialists, and utterly unthinkable to school boards and boards of trustees of institutions of higher learning. But I believe that most people are open-minded enough so that what seems impossible eventually becomes possible when it can be demonstrated that it works. I want to share with you a vision of education, as yet untried and untested as a system, though not without enough empirical support for its various aspects to warrant a prediction that it can bridge the gap. It is a view of education in which the concept of relevance serves as the main integrating factor.

As a behavioral scientist with a strong conviction that many major breakthroughs to an understanding of learning, memory, and the development of talent will come through study of the physiology and structure of the brain, my comments may appear incongruent with my profession. But I also believe that the behavioral sciences have gaps to close, too, and that we have to develop new approaches in them as well.

Daniel C. Jordan

Toward a Definition of Education

One reason we have had difficulty in determining what is relevant in education stems from the fact that we have not yet agreed upon what education is and what being educated means. The relevance of a given teaching method or course content can only be determined by the degree to which it fits into the basic definition of education. In addition to that problem, it appears that even when some basic definitions of education have been set forth and efforts made to change the system, the definitions tend to lose priority while other considerations take precedence. Will making certain changes upset vested interests? Will it threaten the teachers or require additional growth on their part? Will doing what is relevant mean a transition involving administrative headaches? Will it cost too much? Will the taxpayer buy it? Deciding upon what education is and then making the educational system comply with that definition represents the oldest problem besetting public education since its beginning.

At this juncture let me introduce a very general definition of education, then discuss what is relevant in education as defined and what aspects of it the public school system should assume responsibility for and how the public school's effort should mesh with the part of education going on outside the school system.

Education is the process whereby the experiences of the human being are accepted, interpreted, and stored toward the end of enabling him to become what he can become — to develop his potential to the fullest extent possible. These experiences include intrapsychic events, such as dreams or insights from meditation, as well as external events which come to the human being through his sense organs.

Probably few people would disagree with this notion of education, but many are likely to complain that it is so general as to be practically useless for program planning and implementation. Further, given this definition, one is impelled to admit that it is highly probable that the most important educational experiences of a human being take place outside the school, particularly when considered in light of the number of significant potential-developing experiences per unit of time. This is precisely why we need to become concerned about relevance. If public school education can provide more and more of those experiences which release potential, then ways should be found to identify what those experiences are and to make provision for their incorporation into the curriculum, while those exercises which are doing little or nothing for the student should be eliminated as irrelevant.

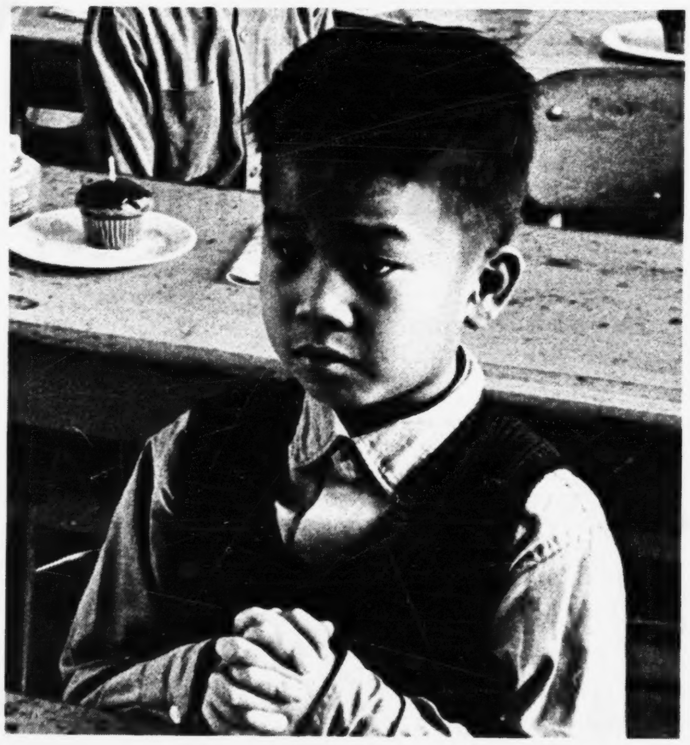
In any case, this definition of education has many implications for relevance which at this point in the history of American education I think are exceedingly important for us to consider. Some of these implications are pertinent to the kinds of information which need to be imparted to the growing human being, but most are concerned with how and what kinds of experiences release the human spirit and guarantee maximum development of capacity. Let me just insert a few words about the former and then devote most of my time to implications of the latter.

Information Relevance

Let it be said right away that since education is largely different from and certainly more than the stuffing in of facts, teaching is more than the dispensing of facts. This is not to say, however, that facts and information are not important to the educational process. They are. But we have become more concerned with trying to dispense as much information as possible (and to some extent with how to dispense it) than with determining what information is basic and crucial, i. e., relevant, to the goal of education. Within the classroom we have been acting as if education were little more than the storing of as much information as possible in a way that makes it retrievable as efficiently as possible without even asking for what purpose.

Having more or less gone along with the idea that education is primarily a process of the dispensing of information by teachers and the storing of it by students, we are then in a position to justify our preoccupation with testing, grading, and certifying the students who are "being educated." The bulk of testing in the American public school system is to determine to what extent information has been stored and is retrievable. Whether the information is relevant directly to the development of a person's capacity is not considered. For example, history teachers have for years and years been testing students to see whether or not they know that the Battle of Hastings took place in 1066. Consequently, millions of people carry around this relatively useless piece of information while practically none of them know what the cause of the battle was or what kind of a lesson there was in it for mankind. Yet, I think most people will agree that if that question were never to be asked again on any test anywhere, it would not alter the course of human destiny one whit or be likely to make one iota of difference in the life of any given student. So why waste time with it? As a piece of information for permanent storage in the mind, it is, for most people, useless. If a student for some reason needs to know that date, he can always look it up. It is easy to multiply this example almost ad infinitum. And would we not be shocked at what would be left of some aspects of contemporary education if we took away all such examples?

To continue insisting upon the storage of useless information in the midst of a knowledge explosion of incomprehensibly vast proportions is a folly of the same dimension.



In brief, what sems to me to be of primary importance in terms of information are the contents of our two basic symbolic systems, language and math, and how to handle them with maximum skill. Without an adequate mastery of these, not only can many other kinds of information not be stored or retrieved, but the transfer of learning is inhibited, communication and expression are blocked, and reflection on experience and its understanding in an ever widening circle of meaning is rendered impossible. Obviously, having these kinds of information is directly relevant to the release of human potential.

Outside of the mastery of the symbolic systems, other kinds of information which are relevant today may not be relevant tomorrow. I do not mean that there is nothing more to be said on the subject. Obviously there is, but it can be better understood after some perspectives on relevance are presented and several criteria for determining relevance discussed.

Ignoring the Nature of Human Potential: The Cause of Irrelevance

If education does involve more than the dispensing and storing of information and does have as its purpose the release of human potential, we must address ourselves to the question of what this human potential is. This is a difficult question, for in the case of a given student, his potential remains an unknown — an open-ended question. But it is extremely hard for people, and perhaps especially so for teachers, to face this kind of an unknown — to work with a living, breathing, "open-ended question." And if it is difficult for a teacher to face this, how much more difficult it is for the student who is trying to grasp something about that same unknown in himself — his unexpressed potential.

So what happens? Teachers are compelled to make assumptions about these unknowns. They have to operate on some premise. But here is the crucial question: What are the consequences if teachers make erroneous assumptions? Their behavior and attitudes toward their students will be based on these erroneous assumptions, and this in turn can do serious damage to the students by creating almost insurmountable blocks in the development of their potential. And the worst of this is that the school system itself typically is not equipped to analyze such blocks (which nearly always manifest themselves as learning disorders) and initiate action to remove them. It is easier to put the blame on the student, label him lazy or "dumb," and let it go at that.

Erroneous assumptions are most frequently made when teachers try to teach youngsters who come from cultural backgrounds different from their own. The best case in point is the middle-class white person who tries to teach the Negro child from the urban ghetto with no special understanding of how different cultures differentially prepare children for school.

There are many possible consequences to a teacher's action based on erroneous assumptions, but one of the most common should be mentioned because it turns out to be one of the most damaging: *The teacher sets a learning task which guarantees the failure of the student.* Failure is guaranteed because the task requires prerequisite attitudes, information, or skills which the teacher erroneously assumes the student has acquired; or, usually less damaging, the student fails to maintain an interest in learning because the teacher bores him with a task that is assumed to be a productive learning experience when in fact it is too simple or "old hat." It is important to recognize the fact that this kind of failure cannot readily be interpreted as lack of capacity but merely that *the task is beyond the student's performance level at that point in time, for whatever reason.*

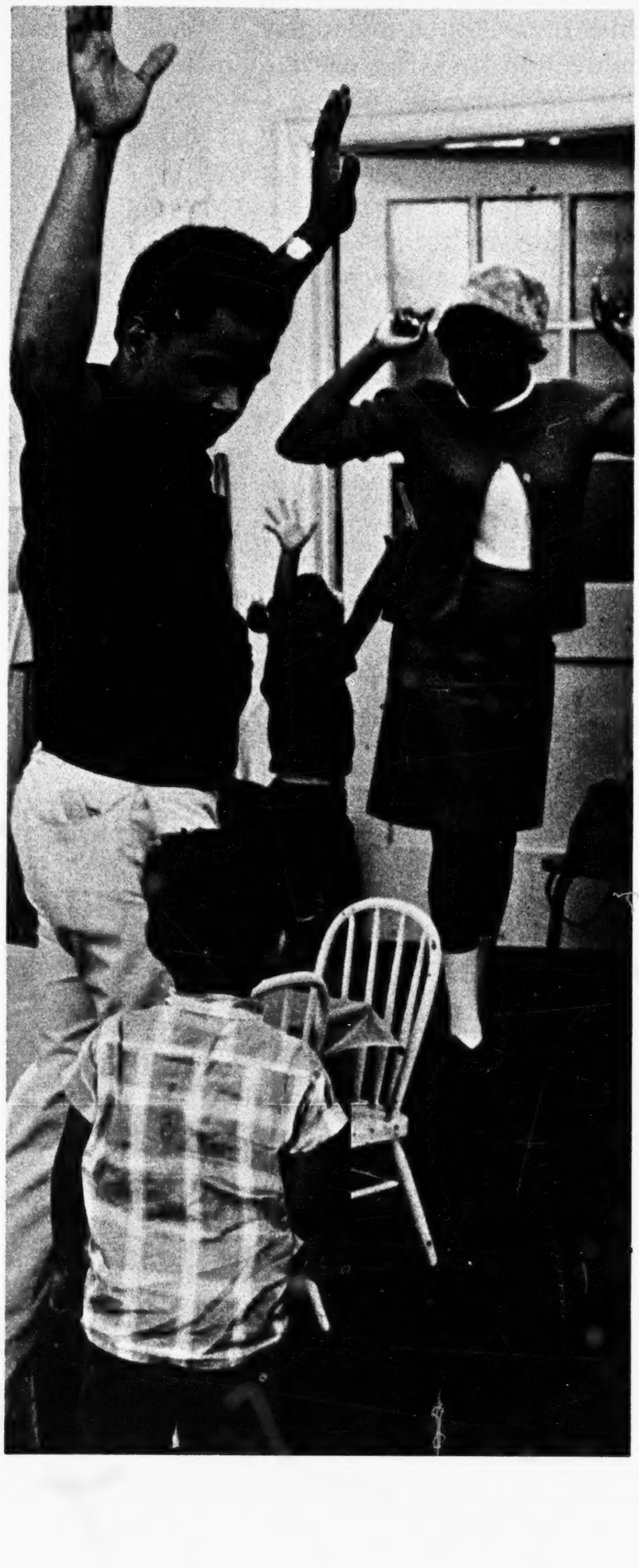
There is nothing so terrible about a failure in itself if the teacher knows how to turn a failure into a positive learning experience. Unfortunately, the institutions responsible for training teachers are not preparing them to do this, nor within the public school system as now organized will they feel they have time to do it even if they knew how. Since much of the knowledge presented in school is necessarily arranged in a hierarchical manner, the understanding of subsequent presentations depends upon mastery of previous ones. Assuming that a student has mastered or attained prerequisites (whether cognitive or affective in nature) when in fact he has not will usually cause him to fail. If early failures are accompanied by intense emotional reactions, a pattern of continuing failure is practically guaranteed. Such patterns are frequently extended to other aspects of behavior, including those concerned with social relationships.

A good many tests have been developed which will predict very accurately this pattern of failure. It is saddening that we tend to be proud of the capacity of these tests to predict failure rather than to be ashamed of our inability to help the student succeed. After all, we don't need a test to tell us that if a child cannot master 2 plus 2, chances are he will fail with 4 plus 4. The real task is how to organize a system which will guarantee success with 2 plus 2.

Failure should function as an orienting experience, pointing the way for a subsequent trial. If failure is not turned into this kind of positive learning experience, with or without the help of the teacher, the student is almost certain to feel unrewarded, frustrated, and in many cases even punished. Inevitably he begins to create an image of himself and develop expectancies of his own performance based on that image. He will set his goal in terms of this image even if that goal is more failure. There is a great deal of evidence which demonstrates that the human being finds it difficult to tolerate cognitive inconsistencies and therefore will strive to perform in accordance with belief. Beliefs about oneself — self-concepts of ability and self-expectancies — are important determinants of behavior, particularly those behaviors associated with new learning. Thus, setting and achieving goals, in accordance with self-expectancies, consciously or unconsciously, is an essential part of the process of expressing potential.

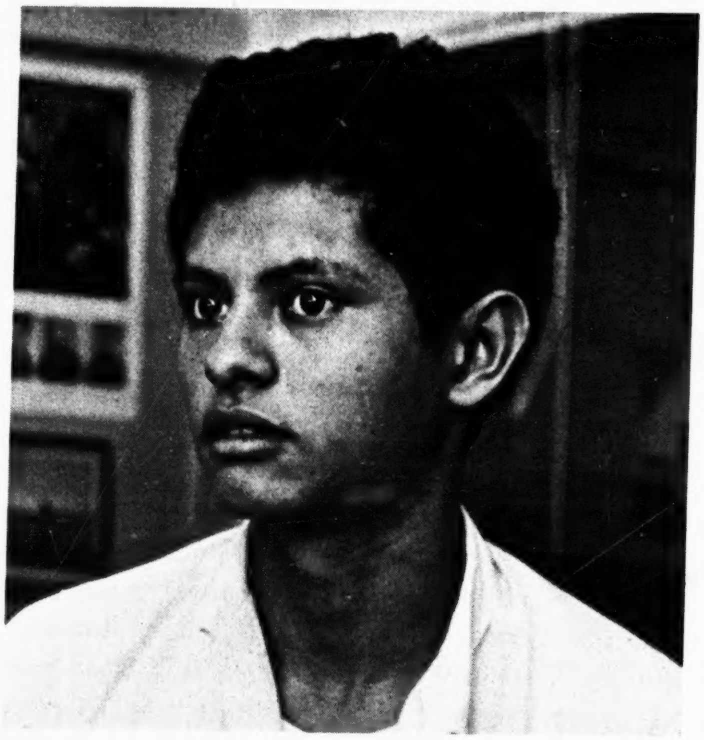
The child has no place to get a view of his own self, a notion of his abilities, and what to expect of himself except from the behavior and attitudes of those around him. Since teachers are nearly always the adults who are around the child when he is trying to master some new skill or acquire additional knowledge in a formal learning environment, self-expectancy of performance as a student will be largely determined by teachers' attitudes and behaviors toward him as he tries to learn. These attitudes and behaviors always reflect the kinds of assumptions teachers make about their students.

Because so much of the subsequent expression of potential in a given human being depends on how he regards the question of



his own "open-endedness," public school education must be centrally concerned with the development of the kind of self-image which will set each student forth on an unending adventure of continuing development and growth. If a human being regards the question of his potential as open-ended, his life will become a progressive unfolding of an answer which is never final. The experience of repeated failure causes a student to give too final an answer to the question about the extent of his own potential and the precise nature of it. He simply says, "I can't do it," or "I always get into trouble," or "I can't learn anything," and the consequence of that is, "So why keep on trying?" When a student reaches that point, it is sheer stupidity to try to continue working with him in the same old way which brought him to that point.

Thus, while the public school system is the creator of positive and functional self-images for many people, it is also the inadvertent crippler of an extremely large number of human personalities. If we consider the extent of this deleterious action of the public school system and the fact that we are paying people to do it with tax funds, it can hardly be regarded in any other way than an institutionalized form of crime of the most insidious nature, even though unwittingly so. Since members of minority groups have been the main victims of the crime, it is no wonder there has been a cry for justice from that segment of the population. What is so extraordinary is the inability of the dominant majority to grasp the enormity of the crime and take steps to eradicate it. Such a crime cannot go unpunished, and so far we have gotten off very lightly. Riots such as those in Watts and Detroit, no matter how deplorable one might regard them, were gentle wrist-slappings compared to what was really due.



The Cost of Being Irrelevant

If we can be honest with ourselves about the cost of this crime, it will give us a perspective on the magnitude of the job of making American education meaningful and relevant for everyone. As a society we spend over $20 billion annually on job creation, relief, food distribution, and special housing programs and billions more on regular welfare services, mental hospitals, police protection, and penal institutions for the millions of people who could not be helped by the school system, many of whom also were ruined by it because they were required by law to attend until age sixteen, by which time ruination is almost complete. For the outgoing, energetic youngster, this kind of "derailment" by the school system will be frustrating beyond the point of toleration and he will find a way of behaving which will force the authorities to decide that, in his case, they should waive the law requiring attendance. Unfortunately, however, the society provides no constructive alternative to being out of school. A dropout usually has even less chance of being successful outside of school, particularly since our society has become so obsessed with the need for educational credentials that there is no opportunity for a person to demonstrate that he can perform without the credentials. Such a young person cannot be expected to become a lover of society. Nearly all of the alternatives available to him are unsatisfactory: becoming a drug addict or alcoholic, becoming a tramp or going on welfare, becoming a criminal or committing himself to a mental institution. Given his self-concept and his set of attitudes and feelings, it is very unlikely that he will take a menial job, be satisfied with it, and develop into a responsible, tax-paying citizen. The cost of dealing with masses of people with nonfunctional self-images in terms of dollars is incredible enough, but we have yet to add to that the stress and strain, the psychological pain and heartbreak, the condemnation of many people to a life of misery, and the loss of many human resources to the society. Taken together, the extent of the costs are staggering. We see it statistically in the form of from twelve to fifteen million functionally illiterate young people, over one million high school dropouts annually, around thirty-five million people living in poverty, and any number of other social pathologies. This is what happens when the expression of human potential is blocked. To reiterate, it is costly on two accounts: the damage it causes has to be paid for, and we lose the positive contributions of the millions who never fully develop.

Some Assumptions About the Nature of Human Potential: Criteria for Relevance

We have noted that teachers inevitably make assumptions about their students. By and large, this is an unconscious process on the part of the teacher even though an important determinant of his attitudes and behavior. The need for him to turn this into a conscious process based on sounder principles suggests one of the basic points of departure which ought to be considered in the development of programs for the preparation of teachers.

I believe that there are some basic, valid assumptions that can be made about every single student coming into the educational system and which can be used to generate criteria by which we may determine whether or not a given curriculum, experience, counseling method, or administrative action within the school system is relevant.

All human beings have a few basic capacities which, taken as a whole, represent the range and depth of human potential. These basic capacities are *loving, knowing, creating,* and *exercising the will* (in the sense of determining and initiating action — volition). There may be others, but in the process of sifting through the names of all of the faculties and capacities which have been mentioned down through the ages, I came to the tentative conclusion that these four, in the way I am defining them, can describe the nature of human potential completely enough to provide a basis for sound planning and action.

Under the capacity of *loving* I include feeling and emotion in general. *Knowing* includes cognitive abilities as well as psychomotor abilities — knowing how to do things or how to move the muscles in certain ways. *Creat-*

ing refers to the capacity to put together heretofore unrelated things to produce something new. Thinking is essentially a creative activity. *Volition* — exercising the will — has practically dropped out of psychology as a useful concept, but I predict that it will become signficant again, even if we have to give it a new name. Studies of the function of the prefrontal lobes in man indicate their role in sustaining the operation of this faculty.

These capacities interact in complex ways which produce the many characteristics of a personality. For instance, we *know* what we *love* or we may know who we are supposed to love. (What happens if you are taught to love or not to love on the basis of skin color?) Turning this around, one can say that it is possible to love knowing or love knowledge. In any case, our feelings about knowing or learning have an effect on what we know and learn and how easily we can learn, and what we know about loving has an effect on that capacity.

For the present, I wish to avoid putting these terms into operational definitions since this nearly always requires an extensive use of jargon which at this point may be only an unnecessary burden. However, I am interested in their operational definitions, in their physiological correlates, and in their relationship to everything we know about conditioning, reinforcement, motivation, cognition, perception, creativity, intelligence, and so on. It is not possible to go into that now. The point is that if the development of any one of these capacities is blocked in a student, for whatever reason, he will represent a problem that the school system will have to deal with if it is to do its job effectively.

Now, if each teacher, as he looks at each student, can say to himself, "Although I don't know the precise nature of his potential, I

ife's hard enough.
You're worried
Runaway Kids
People needing help
Somebody break th
CONTROL
move
MEN WHO GO PLACES
FUTURE
New York
THE ULTIMATE
Confident
EDUCATION
World History
Social Collages

can be safe in assuming that he has the capacity to love, to know, to create, and to exercise will," and if this teacher is trained to know what experiences, or what qualities in any experience, help the development of those capacities, then his teaching will be relevant in the broadest sense of the word. *Thus, anything which will facilitate the development of any one of these capacities has relevance.*

Much remains to be discovered about what kinds of experiences are the developers of human capacity, and current research has begun to point to some potentially fruitful directions for further work. For instance, we have just begun to understand the effect of aesthetic experiences — music, art, drama, dance, poetry — on the development of the self-image, and I would predict that these things are going to have a more important place in the curriculum of the future.

However, we already know many, many things which do facilitate the development of these capacities, and we also know a good deal about what kinds of things block them. Knowing what these things are and how to apply the facilitating principles while avoiding the blocking actions should be among the basic qualifications of any teacher and should be as important in the curriculum for the education of teachers as is preparation in a content area. Dispensing information by itself is useless if it falls on deaf ears. Thus, teachers, or some other staff members of the school, have to be as concerned about what makes the ears deaf as they are about course content.

Any student who can have experiences which enable him to think of himself as a loving, knowing, creative, and self-directing human being will have no serious learning problems. He will be competent and he will have confidence.

Of all single categories of experience, failure which is kept from becoming a positive learning experience, especially when accompanied by strong negative emotions, is the one which precludes the possibility of development of a positive self-image based on a confidence in exercising these capacities.

There is evidence to show that any experience which facilitates the development of any one of these capacities will "feel" relevant and therefore be acceptable to any human being. If the experience is relevant, motivation will be ensured and learning will be facilitated. Consider, then, how harmful is a system which requires a student to take a course which, for whatever reason, is irrelevant to him at that point in time — irrelevant because it is not providing him with an experience which furthers the development of any or all of those basic capacities. Since it is irrelevant, he will not be able to pay attention to what is going on, so he will fail the course. This is tantamount to requiring failure. This failure then gets recorded, is reflected in the quality of his credentials, and becomes a part of his self-image. I have come to look at an F on a student's record in a way quite different from typical interpretations. I learned a long time ago that it does not really represent a student's capacity; it is instead an indication that the teacher who gave the F and the educational system of which he was a part did not know how or did not have or take the time to help the student at that particular moment by discovering how to make the course relevant or help him to "feel" its relevance.

By now it is clear that what is relevant for one student is not necessarily relevant for another. Therefore, any successful school system will have to make provision for this kind of individualized and probably nongraded approach to education. Time and maturation are important factors in whether or not something is relevant. Therefore, students may need "drifting time" or options to postpone some experiences to a later time — and with impunity. What is so sacred about getting a high school diploma at age eighteen or spending only four years getting a bachelor's degree? The educational system should be so organized that students can complete a given segment of the program at many different times without having people think something is "wrong" if it happens to be later as opposed to earlier.

If we play it right, there comes that exciting existential moment when the growing human being becomes consciously and intensely aware of his own powers and possibilities for growth. If he has the positive self-image, he will answer the question, "To be or not to be?" for himself and thenceforth assume the responsibility of directing the further development of his potential. For most human beings I suspect this moment comes around puberty or shortly thereafter. From that point on, each student should begin to determine a large part of his own curriculum. He will be able to *tell* you what is relevant, why it is, and what he wants to know and do. If all else is right, then rest assured he is probably wise in his decisions. The job of the teacher and staff at that point becomes one of helping him to find the information he wants or helping him to have an experience he needs — and then getting out of his way. Furthermore, one can be sure that such a student will go on learning the rest of his life and that he will not become a social liability.

Prospects for the Future

What are the prospects of being able to modify our educational system and the preparation of personnel for it along these lines or other new approaches? I believe the prospects are bright. Federal aid to education is here to stay, and this will provide many varied opportunities for experimentation and research. In this regard, the Education Professions Development Act of 1967 holds a great deal of promise. Under the provisions of this act, money will be available for the development of model teacher preparation programs based on new conceptions of education and the kinds of personnel needed to sustain the profession.

It is obvious that the development of an educational system based on the notions just discussed will require a wide range of educational specialists working together as a team. In discussing the possibilities of how the EPDA might be of maximum service to American education, the members of the national planning commission found it useful to regard education in terms of the management of the learning process, or perhaps even more broadly, the management of a process designed to release or develop human potential. From there we proceeded to imagine the kinds of persons and the kind of organization that would be required to enable people to work together efficiently. It became clear very soon that an organizational structure consisting basically of a principal and a staff of teachers is woefully inadequate. Instead, it made much more sense to define all of the tasks which have to be performed in order to manage the process and then to formulate role definitions based upon the analysis of those tasks. Once roles are defined, positions in the structure can be established and a functional arrangement created. Therefore, within this context, it is more fruitful to look at the management of this enterprise in terms of a highly differentiated staff ranging from top administrators down to part-time personnel, some of whom may be occupying paraprofessional positions.

The business operation of the enterprise could then be managed by somebody who is trained in business operations. Information on the latest innovations in education could be piped into every school where a professional member of the staff would have an official responsibility for discussing with other appropriate staff members ways and means of making use of them. Ongoing in-service education programs for all personnel could become a regular part of the school's operation, probably in collaboration with institutions of higher learning which will also make use of the school system more and more as a locality for the preservice preparation of future teachers. Educational diagnostic and progress evaluation clinics can be set up and staffed. Every student can be "diagnosed" so that teachers do not have to rely on erroneous assumptions about the specific abilities or needs of their students and a sensible basis for a nongraded individualized educational program can be maintained. Media specialists and other kinds of specialists in all aspects of educational technology will become more visible as members of the team. Specialists in learning disorders, counselors, family-liaison workers, librarians, and professional artists and musicians will provide important experiences and services. Community and family resources of various kinds can be mobilized by school personnel who are trained to do it in a way which will ensure that important learning experiences taking place outside the school system can mesh with the school program in mutually supportive ways.

I believe that this is the direction in which we will have to move if we are to establish an educational system that will provide many alternative and necessarily different paths to the same goal — the maximal expression of the potential of every student.

With an adequate supporting staff, teachers will be able to devote their energies to teaching with relevance. As things stand now, most teachers are expected to assume a hopeless and unrealistic load of work and responsibility, and no matter how hard they may try, it is impossible within the framework of the present system to make teaching relevant, in the way we have been discussing it, for more than a fraction of the student body. Thus, in this sense, the system also guarantees the failure of the teacher. Since many competent persons cannot tolerate this as part of their own self-image, they leave the profession. The inept and foolish remain along with the many valiant and dedicated ones who know their own worth and remain in spite of the system in hopes that there is a brighter day soon to come. It will be upon these teachers, who in their hearts really do long for the brighter day, that the ultimate success of the EPDA and similar state and federal programs will depend. They must with patience and tact provide the unrelenting pressure for change within the system, be a source of courage for fainthearted administrators and active champions of the progressive ones.

Great changes in education are bound to occur, and if the intensity of our need is any indication of how rapidly these changes may be occurring, then we should hold on tight! There is good reason for being heartened and excited about the possibilities of developing new perspectives on relevance in education and trying them out.

CARIBBEAN SEA

29

PEOPLING EDUCATION

Laurence D. Haskew ■ *Professor of Educational Administration* ■ *The University of Texas*

Education finds its practical expression preponderantly when some people work with or for some other people in such fashion that desired learnings ensue. Traditionally, we call the "some people" educators and the "some other people" students. Students are, or certainly should be, the people in education exciting the greatest concern. Left to their own devices amid all of the inanimate aids to learning, these people can and do accomplish remarkable educative feats. But we have found it advisable to mix in with them some other people called educators in order that educative endeavors may produce ever more remarkable results, redounding to the benefit of the students and of our society. This paper is about those people mixed in — the educators. But let is remember constantly that they people education for strategic reasons and are not the people with whom education is primarily concerned. The central people are students — fifty million or more unique individuals whose learning establishes education as successful or only partially so.

The challenge to which this presentation is addressed is usually referred to as education's manpower problem. The word *manpower* is distasteful to me. It carries overtones of anonymity and massiveness. Its repeated use has hidden and can continue to obscure the real nature of the challenge. This challenge, I contend, consists of having available, eager, and procurable a particular person at a particular time and place who can do a particular job. That is the reason I shall be discussing people, the plural of an individual educator in a singular position at a specified time and place. It may be necessary at times to refer to all these people as a manpower pool, but let us remember that the manpower problem is essentially a problem of having an educator perform effectively in a spot we need to have filled in Austin, Texas, next year.

Laurence D. Haskew

America confronts a gigantic educator problem. That statement was true when I made it twenty years ago. It is true today. With confidence one can predict it will be valid twenty years hence. For such persistence America can be exceedingly thankful. The educators on deck or in sight today would have taken care of the problem defined in 1948 because they could have handled the school program we were seeking to have then. But in 1968 much more is possible and much, much more is desired. Education is called upon to conquer long-ignored or newly discovered worlds. It is yeasty, innovative, and probably entering an era of tremendous reconstruction. Its patronage by students is skyrocketing and its awareness of the diversity of those students is intensifying. Technology and systems approaches are recasting the productive roles of educators. Competition for personnel is at fever pitch throughout our dynamic society. And so we have a gigantic educator problem. Let us be thankful. But let us not allow its causation and inevitability to obscure its gravity.

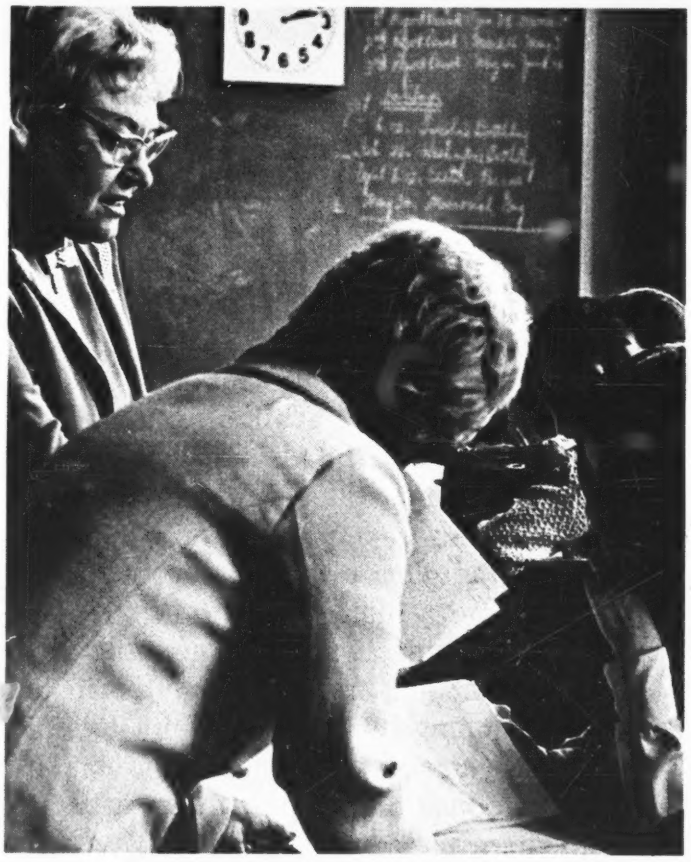
Educators do not hold the key to realization of America's aspirations for education. No one holds *the* key. The door before education is a portal with multiple locks. Technologists must turn one bolt, taxpayers another, organizers another, scholars and researchers another, and so on and on. But no projection of wonders to come that I have seen promises to open that door without a key performance by educators. True, the nature of that performance must, it appears, undergo drastic change. But the educator performance must be present. And all prognostications so far made enhance rather than diminish the cruciality of that performance. This is why the educator problem takes on major primacy among the manpower complexities confronting the American people. The educative strategy is being adopted increasingly as the primary vehicle to achieve the goals of this nation. The limits of what that strategy can achieve are being raised by technology and inventiveness. But education's new capabilities, as well as its old, can be exploited sufficiently only by the presence and performance of educators. The Ninetieth Congress of the United States spoke to the validity of this conclusion when it passed the Education Professions Development Act of 1967 but in so doing only brought to visibility a concern already gripping thousands of people with its urgency.

The educator problem is not essentially a question of producing a national head count of warm bodies to match gross projections of staffing demands. Typical of such head-count revelations is a recent projection of the Manpower Commission of the National Academy of Sciences. For new and replacement elementary and secondary teachers in the decade 1968-69 through 1977-78, it shows a total demand for 2,100,000 individuals. It shows an available supply of 2,700,000 with standard qualifications. Precise figures differ among several similar projections, but all show significantly more available people than available spots to be filled and lead to such conclusions as that stated in the NAS document: "Teaching is a profession where the number of graduates prepared for entry will probably be more than adequate to meet the demand for new teachers in the next decade." But that conclusion, true as it may be in the context producing it, is existentially false in Chicago where essential school programs are begging for educators to staff them, in North Dakota where elementary teachers are terribly hard to come by, in almost every school system where innovative developments require a new set of skillful specialists. In short, the educator problem is a particularistic problem, not a gross one; it arises from qualitative needs much more than from quantitative demands; it is localized, not nationalized; it originates with what can be rather than with what has been.

It is tempting to undertake an analysis of this supernal problem and then to propose a global strategy for meeting it. Three reasons compel me to resist that temptation. First, I am not capable of any such undertaking. We on the National Advisory Council on Education Professions Development and the United States Commissioner of Education are committed to tackling it as a matter of top priority, and we shall seek all the help we can get; but you should pray fervently that better brains than mine will contribute to the results. Second, even a conference presentation has limits upon its scope. Third, and perhaps most compelling, any such formulation leaves an audience waiting for some "they" other than themselves to get going with the solutions to be delivered as Santa Claus packages to expectant — but inevitably disappointed — consumers. That outcome in this particular setting is to be avoided at all costs. If the educator problem is to be licked, the present audience must get in on the licking.

Therefore, I shall attempt to use the rationale of the Non-Conference as a sort of parable for education professions development. I shall, for illustrative purposes, address only one aspect of the educator problem: the achievement of educational change through educators. When we contrast real change with pseudochange in educational systems, we find educators making the difference by what they conceive, embrace, and learn how to get done. Take team teaching as one example. What it amounts to as an effective educational device — in distinction to its status as a means for proclaiming a given school as "modern" — is largely dependent upon what the educators involved in Shady Acres School do. And what they do is in turn largely dependent upon what they are able to do. But the total aspect of change is still too all-encompassing for our purposes. It involves a wide array of educators residing in many locations and operating from a wide variety of positions. The concept of "The Teacher and His Staff" focuses upon only a few of those educators. I like very much the connotations of that theme. They bring us to one particular place and to one particular team of educators who are under compulsion — chiefly of conscience and desire, let us hope — to make changes and make them effective. They constitute the educator problem I shall now examine.

As with so many facets of educative endeavor, achievement of change seems to require a certain type of mental-emotional posture on the part of those in a position to effectuate the changes desired. Throughout America we find numerous teacher-staff teams effecting significant changes in the results secured by schooling; we find many more bravely attempting to achieve such changes by adopting new strategies, trying their best to master new devices, seeking valiantly to use new tools. But we find many, many more who with dedication and impressive loyalty to their perceived calling are barely scratching the surface of opportunity. The educator problem is to increase the company of the former, decrease the company of the latter. Naturally, we call upon the formal institutions preparing new entrants into teacher-staff teams to produce change-prone, reform-dedicated people for the schools to choose. But less than 25 percent of the "teachers" on these staffs in 1980 will be persons who entered the profession after 1970 as graduates fresh from teacher-preparing institutions. And even if every college in America knew today precisely how to change its program to produce the desired results, it would be at least ten years hence before the machinery of academia could be geared to achieve those results for the majority of college graduates. To me, the moral is clear: If change-prone, reform-dedicated, results-centered educators are to compose the majority of teacher-staff teams in this country, they are going to become available



because of what transpires where and while they are working as educators.

By no means is this a dismal prospect. The best place to learn the disposition, posture, and even the skills essential to being an educator is where education is going on. What the staffs of schools have learned to be like over the past ten years is little short of amazing. That is only a hint, I firmly believe, of what could transpire in the next ten years if the possibilities of education professions development in service were fully exploited.

Most educational changes likewise require a teacher-staff team to develop a new — for it — repertoire of resources and performances. The repertoire very likely must include new perceptions of results to be secured, operational definitions of goals and objectives sought. Strange tools must become familiar, and adaptations of those tools to the purposes at hand must be exploited. Extended, if not fresh, knowledge must be acquired; the history major with a cognitive desert where anthropology should flourish is ill-equipped to minister to the social science needs of twentieth century youngsters. Sheer skills in handling old devices — such as the individual conference with a pupil — require extension. On and on we can go in identifying ingredients of repertoire development which are so unrelated to what we call "standard preparation qualifications" as to be laughable. And when we face the fact that we are talking about a repertoire inescapably distributed among a cadre of people — an instructional team — who must work as a production unit, the educator problem is magnified. To all this must be added the stark reality that much of what is needed in the repertoire for change wasn't predictable or didn't exist even five years ago.

Let me point out unequivocally that the matter of almost any conceivable change in education becoming a change for the better turns upon this repertoire issue. The absence of repertoire is what erodes a significant innovation into a passing fad, what replaces old formalities which didn't work with new formalities which do not work either. To be sure, when expanded or new programs are launched there often appears a numerical shortage of workers to fill the spots open. Programs under Title I of the Elementary and Secondary Education Act furnish an illustration. Recruitment of new workers becomes a part of education professions development. The Education Professions Development Act takes cognizance of this need, but it does not solve the real problem thereby. The crucial factor resides in the repertoires workers have to carry out the program intended. In the absence of such repertoires, more workers are only window dressing. The genius and potential of the new program are quickly lost; it lapses into ineffectiveness, not because the idea and the arrangements are unsound, but because education professions development is incomplete. To complete it by providing workers with adequate repertoires is difficult, time-consuming, and expensive. But we should get into repertoire building in a big way, because the most significant hopes for a reformed education are at stake.

Repertoire development is being done successfully in numerous — but still too few — situations. Preservice preparation can carry part of the load. In most instances, however, drastic modifications of its content and procedures are necessary to get even one leg up under the need:

1. By and large, we have thus far dealt almost exclusively with the "teacher" and

not with "his staff" in essaying preentrance repertoire building. That must change.

2. In preservice preparation for teachers, we do need bold new models, but it is strange that we look chiefly to the professional sequence to carry the chief burdens of boldness and reform. The greatest deficiency in repertoire development is attributable to the antiquated, other-worldly, and atomized performance of the academic disciplines in their ministry to the needs of all college students and particulary to those who are going to teach.
3. It is obvious that preservice preparation is going to contribute to the repertoire development needed for today's education in almost direct proportion to the extent to which the wall of separation between it and what goes on in the best schools of today and tomorrow can be breached. The teacher and his staff, and more specifically the people in this audience, need to become breachers. To all these and other reforms and new departures in preservice repertoire building the Education Professions Development Act is addressed, and the United States Commissioner of Education has shaped administrative plans for the act indicating tangible devotion to these objectives. But the EPDA at most can never be more than a strategic contributor to what has to be done for preservice development of educational professionals in this country. The massive efforts required are obligations of states, professional associations, individual institutions, private foundations, and local school systems.

But if teacher-staff teams are to experience quickly the repertoire development essential to genuine change, preservice education is not the place to look, in my opinion. It is too distant in time and place from the circumstances and onrush of opportunities calling for reconstructed repertoires. We have to get closer to where the action is and view repertoire building as a component of *being* a teacher and staff. Repertoire building for the future is essentially an on-the-spot enterprise, undertaken constantly in a semicrisis context. The institutes, short courses, inhouse advanced seminars, and similar devices of the recent past are with us to stay. It is hoped that they can be modified to be more effective, precision-type operations. New breeds of such transmitting endeavors should be invented and applied.

Actually, the cause of repertoire development may be suffering from a plethora of short-term undertakings; everybody seems bent upon getting into the act but not beneath the surface. Isn't it possible that we can bring more rhyme and reason on the scene of intensive repertoire refurbishing? Here we confront a repeated task. It is amenable to systems design. It requires unusual expertise and rare resources of talent. Instead of fourteen agencies improvising separate attempts to teach teachers modern urban sociology, why can't we have one enterprise that will do a superb job? It is my opinion that the intensive enterprise to equip teacher-staff teams to do a job they confront right now is the most underexploited device in all of education professions development, and the creativity of some educators could hardly find a more productive focus than this one.

We are not yet finished with repertoire development. Teacher and staff will always get most of their effective repertoires because of motivations springing from what they undertake to do. You may be favorably impressed by the repertoires possessed by some of the people at work in the TEPS demonstration centers.[1] In most instances, the cutting edges of what these educators possess were honed on the job, not before it was undertaken. This fact seems to be both inescapable and indispensable. I hope its moral is clear: innovation by demonstration is awfully hard to secure. We have been miserably unsuccessful in producing much significant change in American education by the demonstration approach. And the reason, I think, can be found in our proclivity to set up an imitation of the demonstration but to neglect the repertoire development of teacher and staff which gave the demonstration its real cutting edge. Here, it seems to me, is where what we once called supervisory leadership has its most significant contribution to make: not to "teach" the teacher-staff team what they should know, but to get in the situation with them and puzzle out, experiment with, discover, and acquire the repertoires needed. Once more we are emphasizing the principle that education professions development for change is an undertaking of many people; it is not obtainable by simplistic attention to recruitment, selection, professional education, and certification requirements.

One more feature of our parable will be deemed sufficient for present purposes. When we focus on "The Teacher and His Staff" as relevant to educational change, we are assuming that differentiated staffing of education is here to stay and to grow as an organizational arrangement. Many think differentiated staffing *is* educational change, but they confuse means for production with product. Nevertheless, the assumption that differentiated staffing is a wave of the future appears valid to me.

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[1] National Education Association, National Commission on Teacher Education and Professional Standards. *The Teacher and His Staff: Selected Demonstration Centers.* St. Paul, Minn.: 3M Education Press, 1967. Copyright 1967 by the National Education Association.

For education professions development, differentiated staffing brings new problems as it solves old ones. Differentiation rests upon role definitions and role acceptances. It calls for a degree of systems application foreign to the ethos of schools and colleges. It necessitates establishment of working relationships between adults in face-to-face contact and also between present educators and distant ones. It invokes specialization in an enterprise where an integrated, not an assembled, product is in view and where performance of almost every job task changes almost every collateral and subsequent job task. It assumes the willingness of people to be fitted for some positions and left unfitted for others, yet it almost inevitably arranges those positions in a status hierarchy. Its effectiveness depends upon task-meeting specialization, but the tasks to be met are still evanescent and highly amorphous. It assumes that a position can be defined with a job description, while organizational science tells us most positions are what the occupants make them. To make differentiated staffing work in school systems, most models so far invented call for a prodigious load to be carried by the device of "conferring" — a device as primeval in current effectiveness as were the teacher institutes of a century ago. While differentiation is occurring, preparatory institutions are expected to service it while simultaneously assuring their graduates that they can secure employment in the majority of school systems where an elementary teacher is just that.

Such are only a few of the problems inherited by education professions development as education moves toward adequacy in educators and their deployment. But education is gearing up for change to keep pace with change. This necessitates bringing more heads and hands with more knowledge and skills to perform the educative acts that an independent-artisan pattern of staffing can never carry off. Therefore, the assets in differentiated staffing have to be exploited and the problems dealt with to the best of our ability. Those problems are met in cross-section as we contemplate what it takes in the way of professional development to make an effective unit of "The Teacher and His Staff."

For example, the Education Professions Development Act offers to support "programs or projects to train teacher aides and other nonprofessional personnel" and a far-flung inventory of "teachers." How can we train any of these without some delineation of their respective roles, of the competencies and cognitive background necessary for each role, of the interrelationships existent as they compose an effective instructional unit? The answer is easy: We can proceed as in the past and let trainers concoct what they think the answers should be to such questions. Or, the answer is more difficult: We can study teacher-staff teams in operation and try to get some empirical definitions which make sense to the practitioners and give guidance to the trainers. I submit that the more difficult procedure promises greater rewards in diminishing the gap between what people are equipped to do and what they find themselves doing.

What I am getting at is this: "The Teacher and His Staff" is now and will be for some time to come a highly localized phenomenon. Can't we capitalize upon that in the interest of longer-range, more generalized strategies for adapting education professions development to the exigent necessities of differentiated preparation? Instead of asking for and awaiting some National TEPS Commission definition of the role of a teacher aide, a records clerk, a media auxiliary, and so on, scores of places could be working out their own definitions from analyzed experience. They could be testing the validity of specifications for precedent background before some authoritative body comes along with presumed specifications. They could, above all, be training the members of teams in the best situation we now know — a live one involving all the participants in a team simultaneously. Quite frankly, I am terribly afraid the dead hand of the past is going to grip this new opportunity we have for meaningful, job-centered professional development. A high school diploma and a teacher aide course for Grade A auxiliaries; two years of college with X hours in education for Grade B auxiliaries; a fifth year of graduate work to be a presiding teacher; a transcript showing completion of a workshop in media production at a prestige institution for Classification M, ad infinitum. The antidote is creative, open-minded, do-it-yourself local forays into differentiated staff development, using all the participatory help available.

If "The Teacher and His Staff" is something more substantive than a catch line on a letterhead, what *is* it? Who does what in working at educational change? How can they become more able to do it? What we need most at this juncture, in my opinion, are scores of attempts led by venturesome people to work out localized answers to those questions with bland disregard for accustomed rubrics for education professions development. We shall have better national models eventually if we can draw upon local models first.

This paper has sought to have a theme and a focus. Its theme is the educator problem. Its focus is the job of education being carried forward in school systems as the prime locus for working out solutions to that problem in the next decade. The era of expecting delivery of prepackaged, heat-and-serve educators should terminate. A new era should succeed it. In that era, recruitment, preparation, and selection of new entrants assume new cruciality, to be sure, and should be the subjects of sweeping reform. But the next era in education professions development must focus on what happens after entrance. This points a finger imperatively and immediately at the sites where educators work as the sites of professional development. Here is where constructive innovations must abound, where the dead hand of the past must be replaced by the lively hand of the future, and where localized initiative must rise to the challenge of an arduous, complex, and never-ending imperative. The time to start is now.

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IMAGES OF THE FUTURE II

How the Principal Organizes the Secondary School To Expedite Instructional Improvement

J. Lloyd Trump ■ Associate Secretary ■ National Association of Secondary School Principals ■ National Education Association

Almost a decade ago the National Association of Secondary School Principals published a booklet entitled *Images of the Future* in which we envisioned a new approach to the secondary school. We urged new professional roles for teachers and more individualization of learning for pupils in a different educational setting. Many of the recommended changes have occurred since then. What were startling proposals then are commonplace now.

I present here a second *Images of the Future*, but this time it is the model of a new kind of secondary school principal. This principal organizes his time and his school differently so he can place his highest priority where he knows it belongs — on improving teaching and learning.

His school work and other activities directly related to it average a 50-hour week for him. He realizes that he, too, needs time of his own for hobbies, for his family, and for his continued growth as a good citizen and a broadly educated person.

He shows by the use of his time how important is the improvement of instruction. Regardless of whether his school is large or small, activities in this area occupy three-quarters of his working time, or about 37 hours a week. The remaining time — about 13 hours per week — he devotes to other school tasks.

The Problem

Before proposing an organization that will enable principals in different size schools to achieve the goal of three-quarters time on instruction, let us consider some background material. Today's schools present problems which principals never before encountered to the same degree.

Schools still include the usual problems of discipline, attendance, pupil activities, guidance and testing, plant management, transportation, office management, cafeteria opera-

J. Lloyd Trump

tion, and public relations. Some of the operations today are larger and more complex than they were formerly.

Today, new difficulties and opportunities further complicate the principal's life: teachers organizations are more militant; the economically deprived are receiving long-overdue attention; government and foundation programs urge innovations and provide new challenges; different organizational patterns such as educational parks and middle schools are emerging; innovations such as team teaching, flexible scheduling, use of auxiliary personnel to help teachers, improved technical aids to teaching and learning, nongrading, and different curricular content are emphasized; more interest in education is being shown by industrial giants with materials to sell, by parents with selected colleges and professions for their children, and by taxpayers increasingly frustrated by higher federal and state taxes which they cannot easily control.

The principal has two basic clusters of problems: (a) How does he find time to improve instruction, how does he go about it, and how does he know whether he is successful? (b) Since he is in charge of the total educational enterprise for his building, how does he manage all the difficulties, operations, and opportunities mentioned above?

The Organization

Our image of the future secondary school principal reveals how he organizes a staff to answer the foregoing questions. What is the organization to improve instruction? What about the other problems that take so much of his time?

First, we look at how the middle, junior, or senior high school principal handles the second cluster of problems, the ones to which he gives one-fourth of his time, or 13 hours per week. The principal of a large school requires a variety of specially trained assistants, most of whom in turn supervise specially trained subordinates. These assistants provide the principal with the information he needs and handle most situations.

One position is the *administrative assistant,* who is responsible for supervising the school plant, the cafeteria, transportation systems, and the office, and for seeing most visitors and salesmen and deciding if they need to see someone else. This person has specific training for these assignments, including their place within the framework of school objectives. He has authority for final decisions and makes them so effectively that seldom does anyone feel the need to talk with the school principal.

A second assistant is the *external relations director,* who is responsible for translating the school's financial needs into written proposals to the central office and to all levels of governmental agencies, to foundations, and to other groups. Financial proposals and the expenditure of moneys translate the school's goals into practice. This assistant, therefore, also develops and conducts the school's two-way public relations program.

A third assistant is the *personnel administrator,* with responsibility for supervising attendance, discipline, and guidance and for developing liaison with other community youth-serving agencies. His contacts include police and juvenile authorities. He also works with teachers on their welfare problems. Parents and other persons having problems with school youth see him.

The fourth position is *activities director,* responsible for pupil and faculty extraclass

activities, including the supervision of athletic and nonathletic programs and faculty social activities. Community individuals and groups see him in connection with their use of school facilities and other cooperative activities.

None of these assistants need the training typically given to today's assistant principals or to principals. Quite to the contrary, each position requires a unique background of preparation and experience. Their professional escalation is to larger schools or to central office or state supervision of similar activities. It is not to the principalship.

The number of these assistants varies with the size of the school. For example, a 300-pupil school combines all of the assistants into one person. A 2,000-pupil school has four assistants, each with full-time assignments. Larger schools provide helpers for each assistant.

However, in any size school, the principal himself spends no more than 13 hours per week supervising these assistants, receiving their reports, attending events, or dealing with appeals from their decisions. He is firm in the policy of replacing any assistant who is unsuccessful in his area of responsibility to the extent that the principal continues to have to spend a disproportionate amount of time and effort on it.

Now let us turn to the principal's major task — the 37-hours-per-week assignment — the three-fourths of his time that he works with teachers and others to improve teaching and learning. The school organization for improving instruction is different from the staff we described earlier.

The large-school principal may spend three-quarters of his time with teachers on instruction and still lack time to get the job done. This principal needs highly trained persons

to help with curriculum and instruction. These persons, called *assistant principals*, are prepared like the principal himself for these particular responsibilities. Some of these assistants may become principals.

The number of assistant principals varies with the size of the school: none up to 500 pupils, one for each 1,000 pupils or major fraction thereof above that. That means a school with 1,200 pupils has one assistant principal; a school with 2,100 pupils has two, and so on.

Charts I and II symbolize how large, small, and medium-size schools are organized. Regardless of the size of the school, the principal analyzes the tasks to be done, recognizing that he carries the responsibility for the quality of the total educational program in his school. Then he separates carefully what he needs to do himself from what others can do for him.

The Program

The first requirement is that the principal knows where he is going. He reads widely, listens to teachers and other experts, and reflects on the pressures that come from many sources. He has developed a sound set of values. So he knows, for the present, what needs to happen in his school, and he has a program to ensure that it will.

The principal educates himself, and his staff in turn, by studying reports of the research done by others. If he wants some information about his own community or school, he initiates the local studies needed to get it.

CHART I

TO IMPROVE INSTRUCTION

(See Chart II for Further Details)

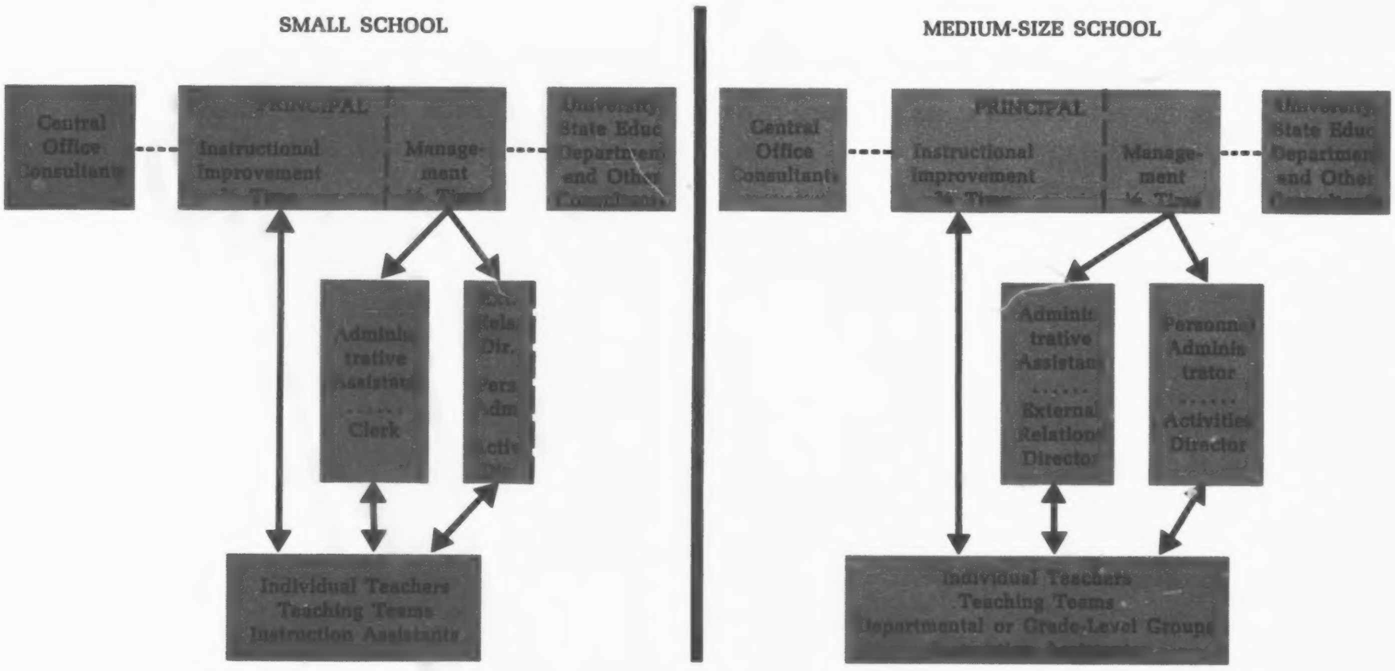
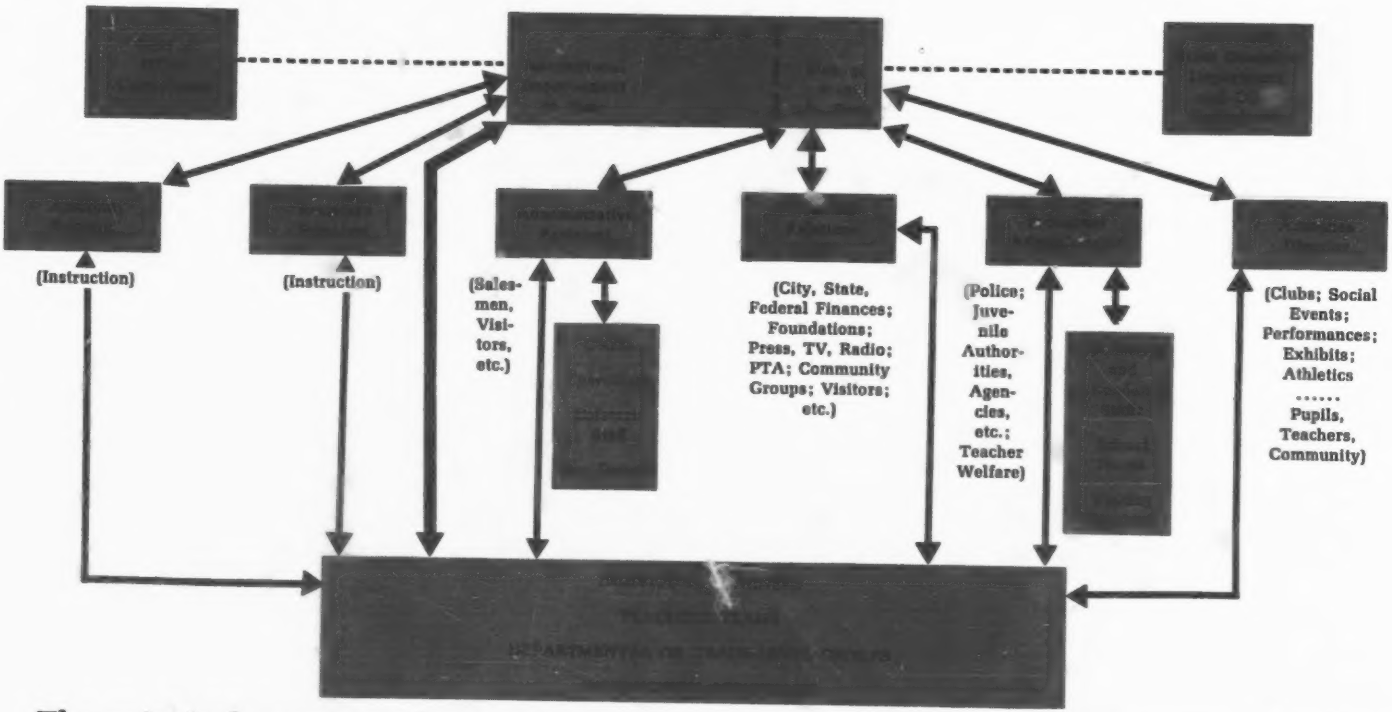

SMALL SCHOOL
Central Office onsultant
Instructional Improvement
Management
State Educ epartmen and Other
Administrative ssistant
Clerk
Dir.
Individual Teachers
Teaching Teams
Instruction Assistants
MEDIUM-SIZE SCHOOL
Central Office onsultant
PRINCIPAL
Instructional Improvement
Management
State Educ Departmen and Other
Administrative Assistan
External Relation Directo
Personn Adminis trator
Activitie Director
Teaching Teams
Departmental or Grade-Level Group

CHART II

TO IMPROVE INSTRUCTION

LARGE SCHOOL


(Instruction)
(Instruction)
(Salesmen, Visitors, etc.)
(City, State, Federal Finances; Foundations; Press, TV, Radio; PTA; Community Groups; Visitors; etc.)
(Police; Juvenile Authorities, Agencies, etc.; Teacher Welfare)
(Clubs; Social Events; Performances; Exhibits; Athletics
......
Pupils, Teachers, Community)

The principal presents ideas to his entire staff as effectively as he can. He sees faculty meetings as a form of large-group instruction. He uses mass media, outside consultants, or any appropriate means available to motivate teachers, to provide information not readily available to them, and to urge teachers to follow up a particular proposal with further study and research in preparation for the discussion and decision making that will follow.

All teachers need to meet in discussion groups of not more than a dozen or so persons. Departmental or grade-level groups clarify proposals and discover areas of agreement and disagreement. Teachers tentatively interested in a project will hold additional meetings. The principal helps those teachers to translate the goals of any proposed project into expected changes in pupils, in teachers, in school facilities, in expenditures, and in other factors related to the innovation.

The principal meets with all groups to consult and observe and to facilitate group process. He does not wait for everyone to agree. He knows that it is important to begin, so he works especially with those teachers who are interested. This is the in group — those teachers who are open to new ideas and willing to try them out.

At the same time, the door to participation and observation is held open for the out group — those teachers who prefer to sit tight, to wait and see. The principal makes sure that the entire faculty knows what is going on — although the spotlight is on the inner circle. The hope is that the glow of their activities will make the others want to take part.

Teachers who are going to engage in new programs need to be prepared. Usually they need additional training at summer workshops, with students to practice on and outside consultants to help.

The principal helps to create a school environment that gives new programs a chance to succeed. The changes usually will include a new schedule for teachers and pupils, new books and learning aids, the reallocation of space, and the provision of personnel assistants.

Once programs are under way, the principal frequently visits the places where teaching and learning occur. Conversely, he does not attempt to visit all other teachers in a routine fashion. He knows the difference between good and poor teaching and learning situations, so he fosters the good and works to correct or eliminate the poor. The innovating teachers meet frequently to discuss what they are doing and how it is going. The principal meets regularly with them.

There is continuous need to find out how well new programs work and how good they are. The principal asks teachers the hard questions: What are they trying to accomplish and why? How will they specify their goals so they can collect authentic data that will measure the results? He follows through to make sure they do.

There are several dimensions in evaluating a new program, but the most important to students and their parents is pupil progress. However, the principal pushes consideration of all kinds of changes and the establishment of priorities for selecting the most important to evaluate. Specialists take part as needed.

The effects of new programs on teachers also are studied. Innovations affect teachers as well as students. The financial consequences in relation to the results for students also are analyzed.

The Principalship

The principal's preservice preparation emphasizes such concerns as curriculum content and methods, social and psychological foundations, evaluation, and techniques for working effectively with people. Prior to assuming a position as principal or assistant principal, he spends a year as an intern, learning how to work with teachers, in a forward-looking school. The NASSP project entitled "The Administrative Internship in Secondary School Improvement" has demonstrated the particular type of program needed by these principals-to-be. Universities and selected schools work cooperatively in this project.

His first position is either as principal of a small school or assistant principal — as described earlier — in a larger one. In either case, he works hard to keep up to date. He reads, attends professional meetings, and takes part in conferences and workshops at universities. The principal also frequently visits universities, state education departments, and other places to confer about school developments and to identify who may be effective consultants.

The further education of principals is a continuing need. Periodically, principals need to attend special institutes, courses, and workshops for sessions lasting two months, more or less, during the school year. An assistant principal takes charge during the principal's absence. Periodic full-time study of latest research findings, project developments, and innovative ideas is essential for the kind of principal described here. His education is never completed, even though he may have received a doctorate somewhere along the line.

This image of the future principal reflects a person who accepts responsibility for the quality of the total school program. His top priorities are on improving teaching and learning. No one else from outside the school can provide the constant leadership needed. Teachers cannot improve instruction solely through negotiations. The principal is there. Only he can generate the instructional improvement that the school needs. He demonstrates his influence because he is ready for action, prepared, and able.

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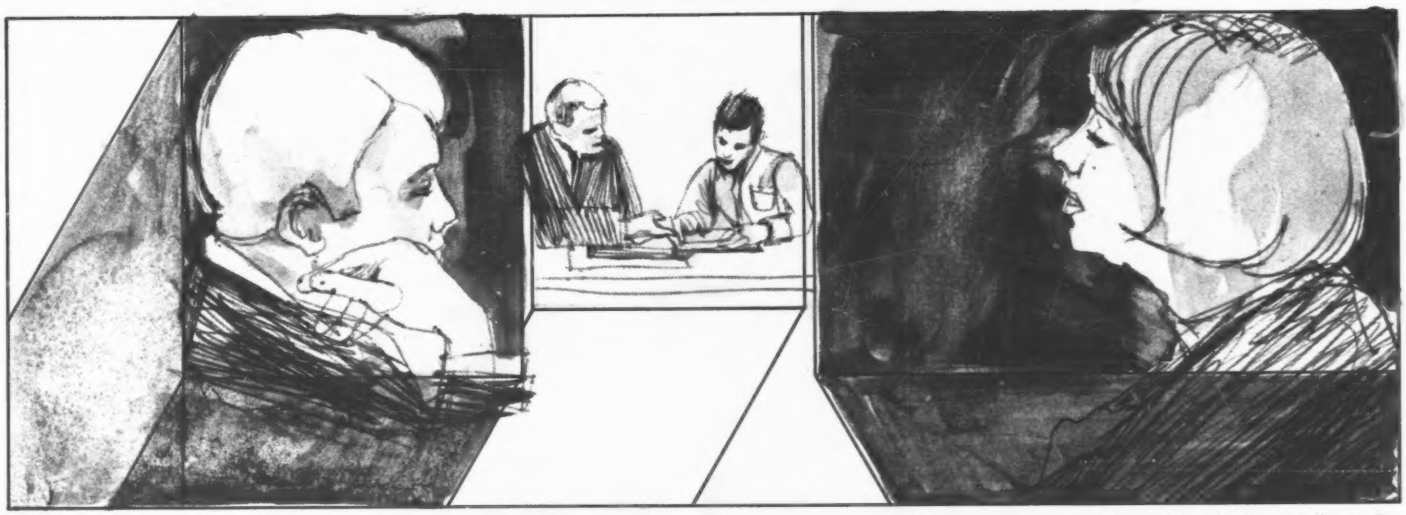
STAFF SUPPORT FOR INNOVATIVE TEACHING



Eugene R. Howard ■ *President, Nova Learning Corporation* ■ *Ft. Lauderdale, Florida*

Not long ago Denemark stated flatly that "the job of today's teacher has become virtually unmanageable. Unless something is done to remedy the situation, creative, competent teachers will find themselves hopelessly bogged down in technical and clerical duties which could be performed by others."[1] Certainly, those of us who have been involved in the activities of the Year of the Non-Conference will agree wholeheartedly.

Likewise, the public relations director for the Illinois Education Association has stated that no single individual could possibly possess the competence, energy, or time to deal effectively with all the responsibilities typically assigned to one teacher. "The self-contained teacher, the self-contained classroom, and the self-contained school are obsolete."[2]

Probably we could all agree with this statement, too. As Patton pointed out, changing and expanding the traditional concept of one teacher ministering to all children to the concept of a system which involves cooperative efforts by teachers, teacher aides, consultants, and other supportive personnel was the central focus of the Non-Conference.

Consider for a moment some of the tasks teachers are typically asked to perform in the conventionally organized schools.

The central task — that of planning, managing, and evaluating the teacher-pupil-materials interrelationship — is the task for which teachers are especially trained (see Figure I). The management of this interrelationship is usually what we mean when we talk about "teaching." The task includes planning units of instruction, diagnosing student learning difficulties, prescribing appropriate learning activities, relating learning experiences to individual pupil interests, organizing curriculum, and evaluating pupil progress. It is a kind of "psychological architect" role.[3] The teacher helps his students build step by step the kind of psychological environment which will encourage positive attitudes toward learning. This psychological environment is composed, at least in part, of the teacher's and the group's performance expectations, the value systems of the pupils and the institution, and the social and communications structure of the group.

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[1] Denemark, George W. "The Teacher and His Staff." *NEA Journal* 55: 17; December 1966.

[2] Patton, L. Goebel. "The Teacher and His Staff: The Year of the Non-Conference." *Illinois Education* 56: 21; September 1967.

These two roles — the role of manager of the teacher-pupil-materials relationship and the role of psychological architect — are the most highly professional. They demand of the teacher an extremely high level of understanding of applied psychology of learning, of group dynamics, and of the functioning of the social system within which learning is to take place.

All else is distraction.

But look at the many other jobs we ask teachers to do (see Figure II). We ask them to do their own typing; keep and reproduce pupil records; mark papers; run duplicating machines; collect and account for money; order and return films; supervise lunchrooms, playgrounds, corridors, and washrooms; and operate audiovisual equipment. And this, as you know, is only a partial list.

Businesses organized this way would go broke. Any hospital which built job descriptions like this for its doctors would be killing its patients.

The Year of the Non-Conference was or-

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[3] See especially: Parker, J. Cecil, and Rubin, Louis J. *Process as Content: Curriculum Design and the Application of Knowledge.* Chicago: Rand McNally & Co., 1967. Chapter 5, "The Engineering of a Process-Centered Curriculum," pp. 50-66. "In its simplest sense," say Parker and Rubin, "classroom instruction is a matter of establishing conditions under which the child can learn." (p. 60)

ganized to encourage in our nation's schools the building of new, reasonable, rational, highly professional teacher roles. Our experiences this year suggest to us that a productive teacher-pupil-materials relationship can best be supported in three ways: (a) through providing teachers with the assistance of a variety of different kinds of auxiliary personnel, (b) through providing teachers with the support of many different kinds of professional specialists, and (c) through enabling teachers to utilize better the unique talents of one another (see Figure III).

Let's look individually at each of these three kinds of support for professional teaching.

Auxiliary Personnel (See Figure IV)

I would suggest that we consider four different kinds of auxiliary personnel: instruction assistants, community consultants, clerical aides, and general aides. These general classifications for auxiliary personnel were originally suggested by Trump and Baynham [4] about six years ago. Most of what has been written on this topic since then seems to be consistent with their original idea.

Instruction assistants, according to Trump and Baynham, would do such things as serve as laboratory assistants, evaluate some written work of students, supervise specific out-of-school projects, confer with students about their progress and provide the teachers with reports, and assist with extraclass activities. Many instruction assistants would be college graduates and all of them would have had specialized training for their specific duties.

Community consultants, Trump and Baynham suggest, would be individuals within the community who possess specific competencies in certain fields. These individuals would be called upon to come to the school to make

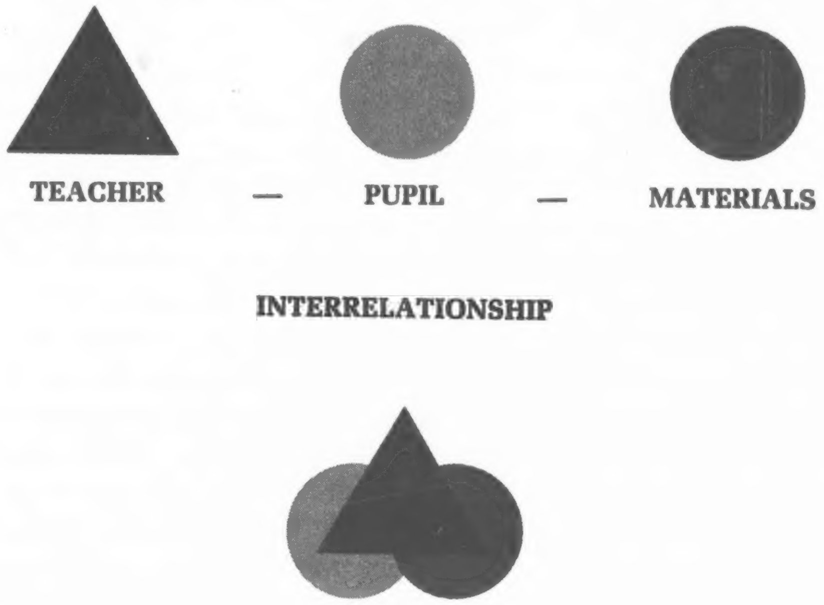

FIGURE I

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[4] Trump, J. Lloyd, and Baynham, Dorsey. *Focus on Change*. Chicago: Rand McNally & Co., 1961. pp. 33-35.

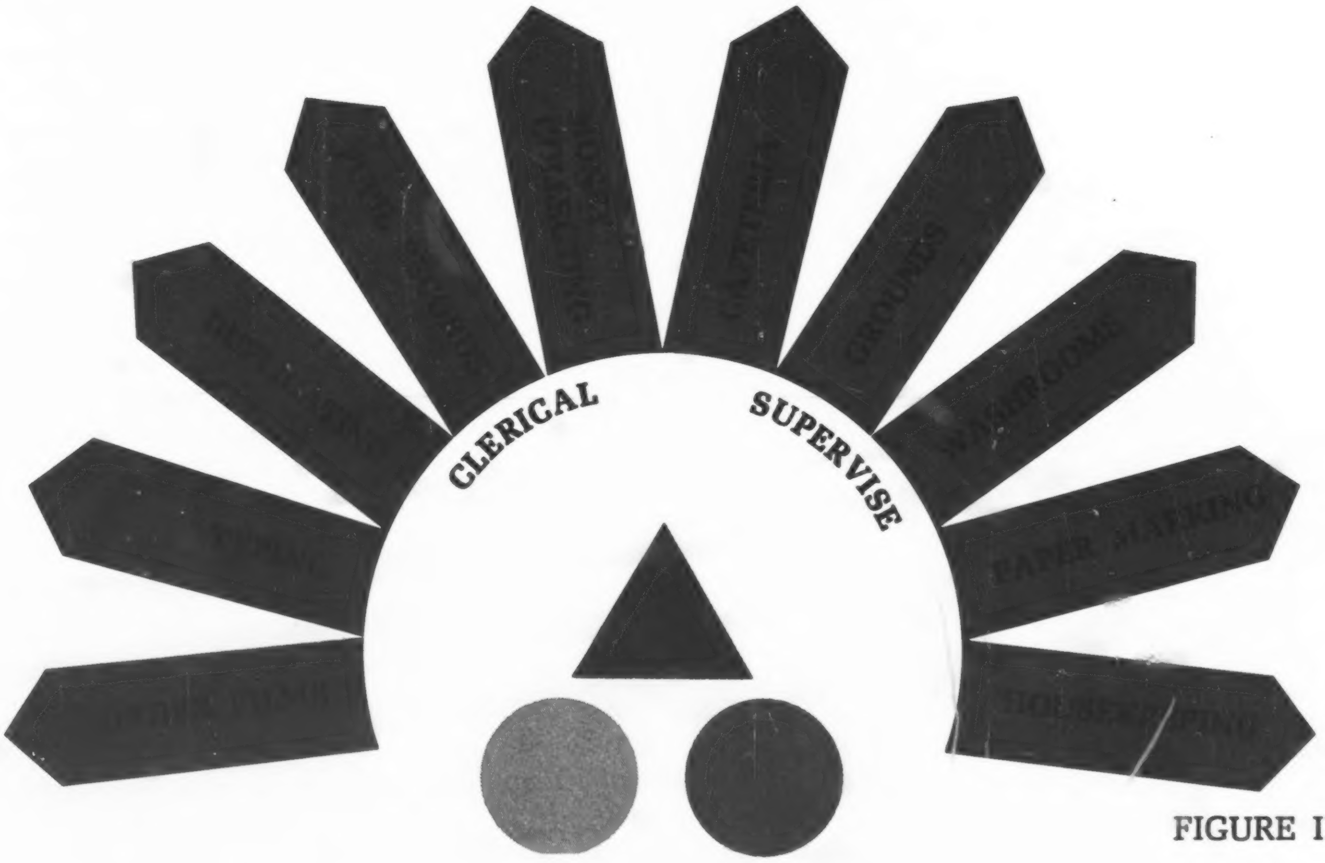

FIGURE II

specific presentations or to provide special information. They would make their presentations live to a group of students, and the presentations also could be preserved on film, tape, or video tape for future use.

Clerical and secretarial aides are now becoming more common in schools. They relieve teachers of such nonprofessional tasks as typing, duplicating materials, grading objective tests, keeping records, distributing supplies, and taking attendance.

General aides, Trump suggests, would control and supervise students on the school grounds, in the cafeteria, in the corridors, in the auditorium, and in some extraclass activities. Ordinarily, such aides would be high school graduates employed on a part-time basis.

Other Professional Specialists (See Figure V)

Some schools have organized their school-based professional specialists into development teams — teams of specialists specifically assigned the task of stimulating, for the teaching teams, special projects and programs carefully designed to improve instruction. In a sense, this group assumes the responsibility of providing instructional leadership to the school. It is important to note, however, that these individuals *do not work out of the superintendent's office.* They are based in each school where their services are readily available to the teachers and pupils.

Most of these positions already exist in our schools. Typically, however, school administrators have not provided the school with the kind of organizational framework which will make these talents readily available to teachers.

Materials and media specialists already exist in the person of the librarian and the audiovisual director.

The problem with librarians these days is that they spend too much time in libraries. It is time they began to train others to catalog, process, purchase, and repair books and to supervise students. The librarian should see himself as a specialist in independent study and a specialist in learning materials. As a specialist in independent study, he helps students match their interests to learning materials appropriate to their interests. As a specialist in learning materials, he helps the teaching teams build into every unit of instruction as wide a variety of appropriate materials as possible.

The media specialist has virtually the same job description except that he has specialized in audiovisual materials and equipment, whereas the librarian may be limited in such knowledge. The media specialist usually needs at least a part-time staff artist and a technical assistant if he is to be freed for professional consultation with teachers and pupils.

Specialists in curriculum content and theory exist now, at least on most high school staffs, as department chairmen. Most elementary schools currently have to rely on specialists from the district superintendent's office to work directly with teachers on curriculum.

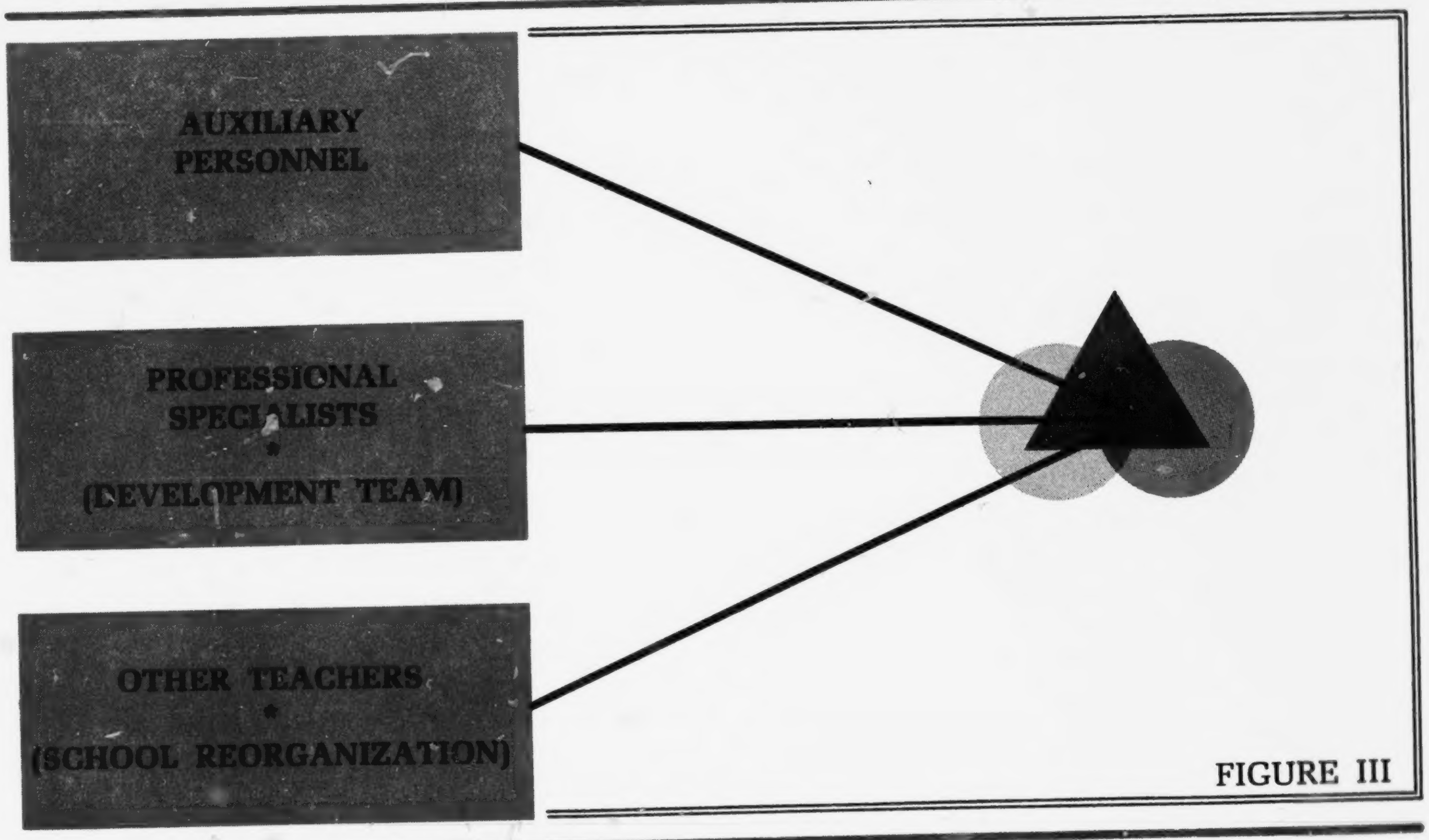

FIGURE III

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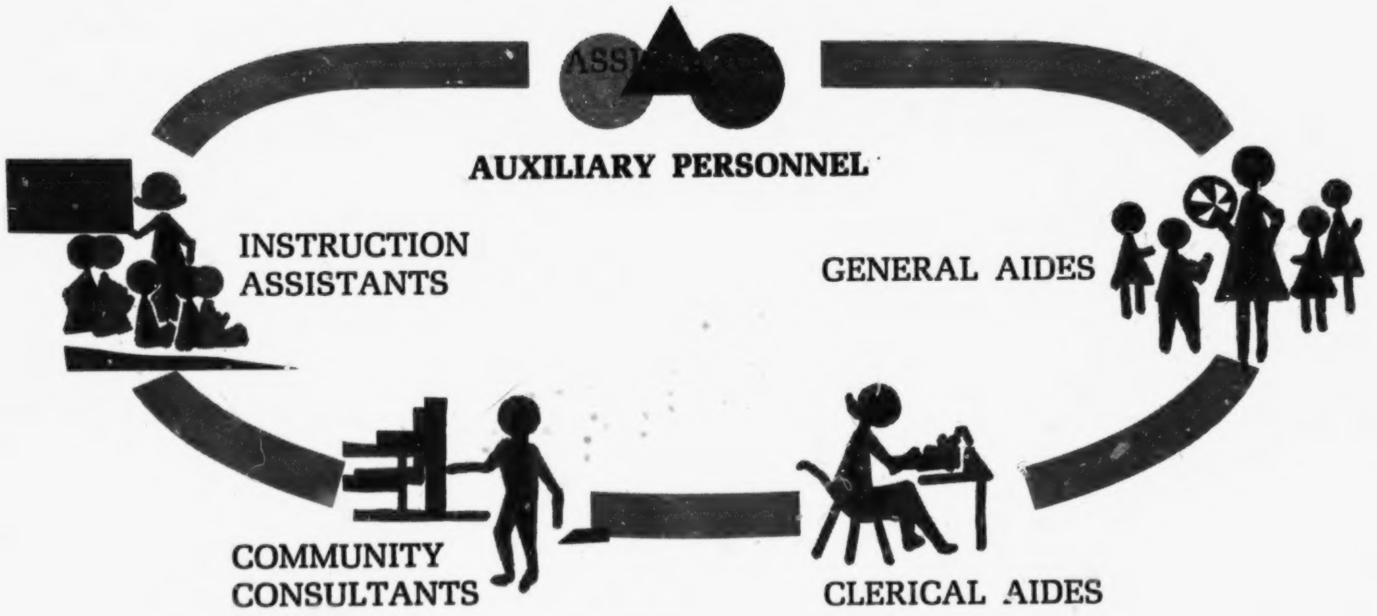

AUXILIARY PERSONNEL
INSTRUCTION ASSISTANTS
GENERAL AIDES
COMMUNITY CONSULTANTS
CLERICAL AIDES

FIGURE IV

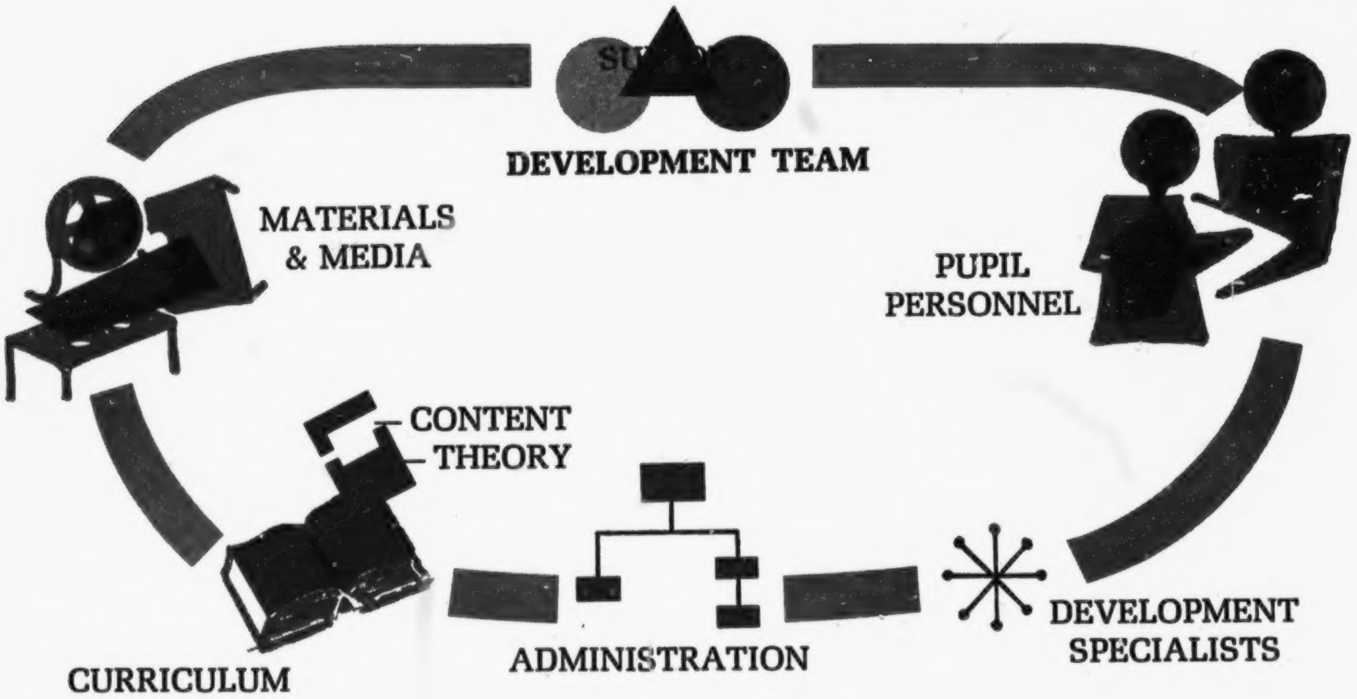

DEVELOPMENT TEAM
MATERIALS & MEDIA
PUPIL PERSONNEL
CONTENT
THEORY
CURRICULUM
ADMINISTRATION
DEVELOPMENT SPECIALISTS

FIGURE V

If our teachers are to be truly professional people, they must be delegated the task of building the curriculum. A teacher should not be a technician implementing someone else's ideas. Rather, he should be a creative professional, organizing the work of others into a flexible pattern which provides for a wide range of individual differences among pupils. Given appropriate support from one or more school-based curriculum specialists, the teaching team *can* structure curriculum.

Until teachers begin to do this kind of curriculum work, diagnostic and prescriptive teaching will remain a pipe dream.

By the way, the typical high school provides released time to department chairmen equivalent, schoolwide, to from one to two full-time positions. By moving the school from the comparatively inefficient departmental organizational plan to the more efficient divisional and team-teaching plan, most high schools could afford two full-time curriculum specialists who could be members of every teaching team and who could be available to help teachers at all times.

Insofar as elementary schools are concerned, I would recommend that they be built large enough so that school-based consultants can be added to the staff at a reasonable per-pupil cost.

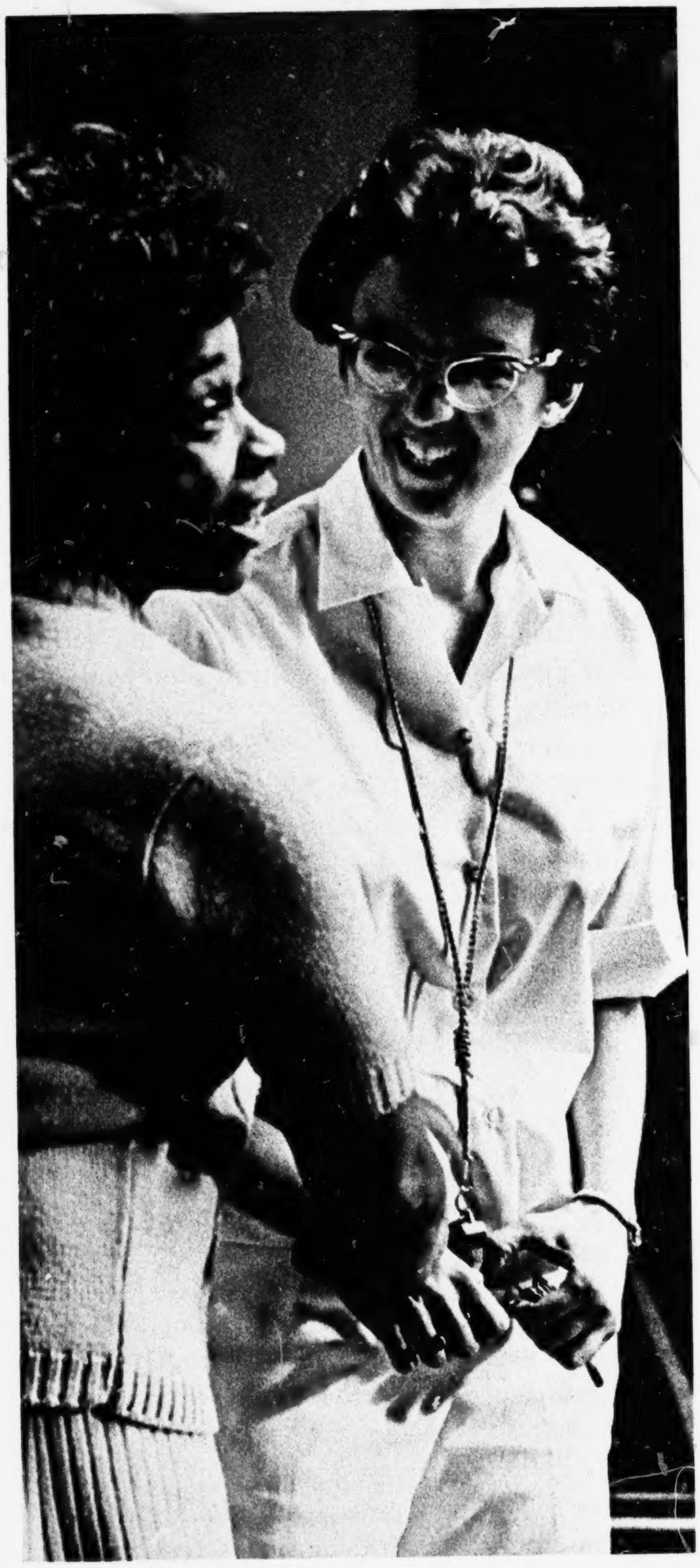
The school administrator is the organizational and communications specialist in the school. He is also the faculty's principal instructional leader and the verbalizer and personifier of the school's educational philosophy. He is the designated leader of the development team, the group that is organized as efficiently as possible to support the teaching teams as they manage the teacher-pupil-materials interrelationship. As a rule, administrators should not make decisions which affect instruction. Their job, rather, is to provide an organizational pattern for the school within which teachers can make professional decisions with confidence.

It is the principal's job, as personifier of the philosophy, to build into his school the kind of organizational climate which makes the school a safe place for creative students and teachers. It is his job to see to it that communications lines are kept open and that staff members and students talk to one another regularly about mutual concerns of importance to the institution. It is his job to see that the teachers in the school are not afraid to make important decisions about their jobs because they know what the school stands for. It is his job to see that the school is moving in a direction which everyone understands.

It is not his job to evaluate teachers or teaching. Rather, it is his responsibility to provide faculty members with the kind of professional assistance they need in order to evaluate their own teaching and to initiate improvement procedures on the basis of their evaluations. The teacher evaluation checklist, to be filled out by the principal and turned in to the superintendent four times a year, is as obsolete as the self-contained classroom.

The professional teacher of the future, supported by specialists from the development team, will learn how to base decisions more and more on knowledge and information, less and less on expediency, prejudice, intuition, and pressure. A major responsibility of the principal is to help his staff learn how to make rational decisions on the basis of knowledge and information.

Assisting the principal in this highly complex teacher education task is a research and



development specialist. Typically, such specialists do not exist on school faculties today except in a few schools which have received outside funding for special research or development projects. Many districts, of course, hire research and development specialists who work out of the district office. Such individuals, however, are spread much too thin to be of regular assistance to a teaching team.

The school-based development specialist has two major responsibilities:

1. He is the communications link between faculty members who are seeking answers to practical instructional problems and district-level and university-based researchers who have important knowledge applicable to such problems. He assists the faculty in making decisions which are as consistent as possible with what research has to tell us about learning and instruction. He is a translator of research into practice.
2. He is a stimulator of experimental and pilot projects to be initiated by staff members. He helps teaching teams identify problems, state questions in such a way that answers can be found, design evaluative instruments, gather and interpret information about the results of a specific path of action, and base plans for further action on the information thus generated. In short, he is the specialist on action research for the faculty. He helps the faculty move systematically and rationally into innovation. He is the faculty's major protection against irresponsible, superficial innovating which changes the form but not the substance of the instructional program. He is a school-based change agent

with the responsibility of leading the faculty into meaningful, educationally sound, carefully planned, and well-evaluated program improvement.

Most schools already have on their staffs one or more pupil personnel specialists. They may currently hold the title of director of guidance, social worker, counselor, school psychologist, or assistant principal in charge of discipline and attendance. At least one of these specialists should be a regular, active member of the school's development team, available on a day-to-day basis to assist the teaching teams with their planning.

The specialist in pupil personnel, as a member of every teaching team, assumes the responsibility of assisting the faculty in organizing units of instruction and curricula which will be appropriate to the needs, interests, and maturity level of the students for which the units of work are intended. He is the principal specialist on the staff regarding the characteristics of students. Without his help, teachers might too often assign inappropriate materials to students. With his help, teachers have a better chance of building units of instruction which stimulate and excite the learners for whom the units are intended.

Also, of course, the pupil personnel specialist can keep the faculty well informed regarding students with special needs and special learning problems. He is the interpreter to the faculty of the kinds of difficulties faced in the school by the bright, highly creative student, the emotionally disturbed, the visually handicapped, and the academically untalented. He is the consistent advocate on the staff of more and better individualization of instruction.

Given this kind of support from school-based professional specialists, even relatively unimaginative faculties can "catch fire," can become excited about their jobs, and can become responsibly innovative.

It is true, of course, that responsible change in a school costs money — money beyond that which is spent to operate the traditional program. But an effective development team costs less than you may think because most of the members are already a part of the school staff.

Every school should have a small development budget — funds earmarked especially to stimulate thoughful innovation. The staffing plan and expenditure plan for a school going through a period of schoolwide change should *not* be the same kind of plan that is appropriate to a school dedicated to the status quo. "Retooling expense" is a necessary and legitimate expenditure of the taxpayers' money. If we believe in change, let's not hesitate to spend a little money on it.

Support from Other Teachers (See Figure VI)

The third kind of professional support available to the teaching team is the support of other teachers who are not, perhaps, regularly assigned to the team.

A school designed for maximum utilization of the talents of its staff is a completely reorganized school. It is a school which has not only reorganized personnel but has also reorganized time, space, and curriculum.

Reorganization of personnel usually leads the school into some kind of team teaching or cooperative teaching. Two new trends in team teaching might well be mentioned here:

1. The trend toward flexible rather than rigid team membership
2. The trend toward organizing students into a variety of learning teams.

I cannot go into these two trends in any detail here, but they will bear watching.

Reorganization of time usually involves some variety of flexible scheduling. The most commonly used varieties of flexible scheduling are as follows:

1. The daily-demand schedule — a system whereby a completely new schedule is tailor-made for the school and for each student every day
2. The block-of-time schedule
3. The computer-generated modular schedule
4. Various combinations of the three.

Reorganization of space typically involves tearing down walls to provide space appropriate for learning laboratories and large-group instruction, adding walls to provide for small seminar rooms and conference rooms, building large multimedia instructional materials centers and independent study centers, and providing other special-purpose independent study areas in various parts of the building. With a little imagination and a modest amount of money, most existing buildings can be adapted to the new kinds of programs.

Many new schools are being built with broad, open, carpeted, multiuse spaces which facilitate team learning, team teaching, and independent study. Such buildings are usually less expensive and certainly more functional than the obsolete self-contained classroom variety usually built.

Reorganization of materials is perhaps the most difficult of all reorganizations to accomplish. However, a number of schools are succeeding in building flexibility into the curriculum where little existed before. Typically, this is being done by developing modular curricula—curricula composed of individual learning modules. The Nova Schools call these modules "Learning Activities Packages"; some schools call them "Individual Prescription Units"; others call them "Unipacs," a term coined by Gardner Swenson and his associates of the Institute for Development of Educational Activities. Whatever the units may be called, however, the basic idea is the same. An attempt is made to organize the curriculum in such a way that teachers and pupils may exercise well-defined options regarding both pace and content.

Built into each learning module or unit of instruction are carefully designed content options. Thus, it is not necessary for every student to utilize exactly the same material as used by every other student proceeding through the unit.

Progress from one learning module to another is made by the individual or by the learning team on the basis of demonstrated competence rather than on the basis of a predetermined pace appropriate for only some students in a group.

Once competence has been demonstrated to the satisfaction of the teacher, the individual pupil or the learning team may (a) exercise an acceleration option and proceed to another learning module, (b) exercise a depth option and pursue further teacher-planned work on the same or a related topic, or (c) exercise a quest option and pursue a

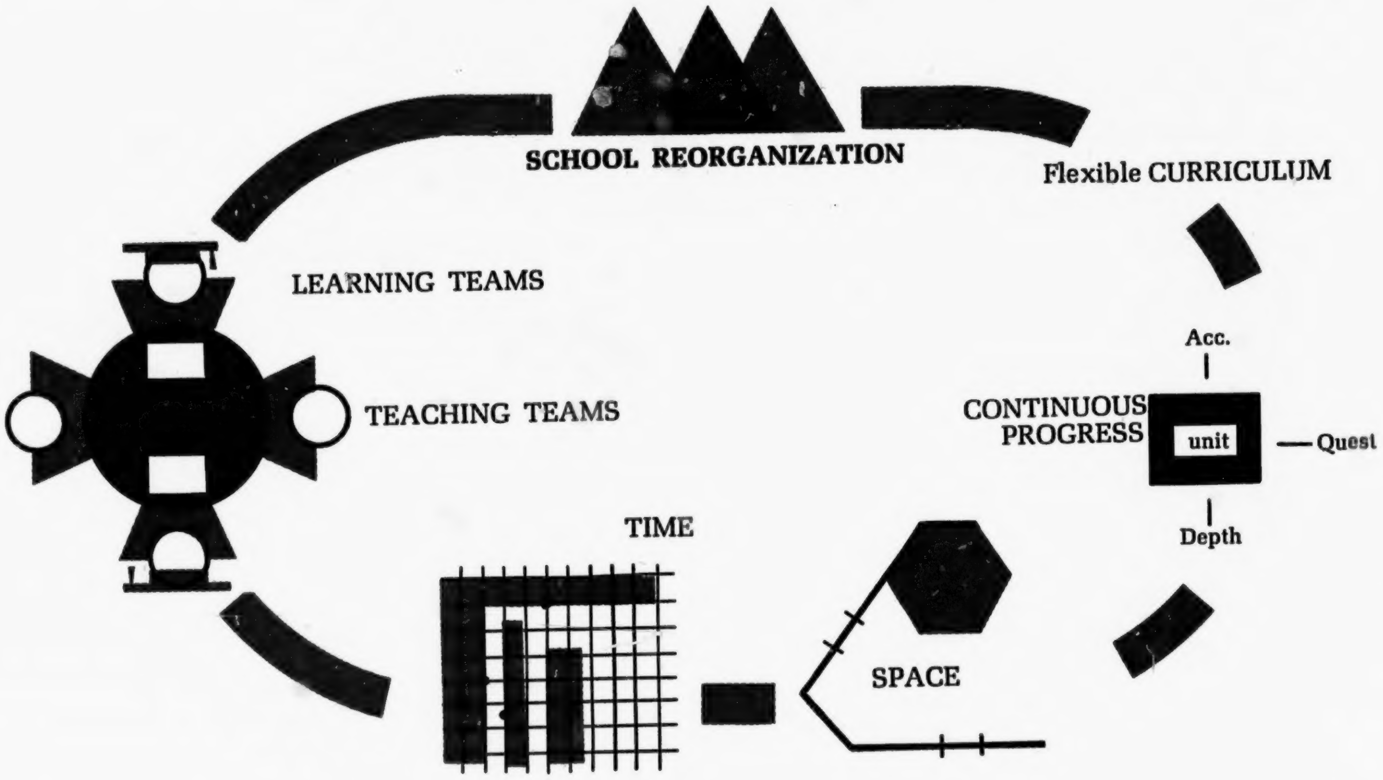


FIGURE VI

student-planned learning module on the same or a related topic.

The term *continuous progress* is usually used to designate this type of flexible curriculum.

The kind of school, then, in which personnel, time, space, and curriculum have been carefully and systematically reorganized is a school which provides a setting both for individualizing instruction and for professionalizing teaching.

In this kind of school, teachers can utilize the talents of one another more readily than was formerly possible. This is true because organizational and physical barriers which traditionally have made cooperative planning and teaching very difficult will have been replaced, in the reorganized school, with organizational and physical flexibilities.

In such a school, important decisions about the learning situation which traditionally have been made by administrators, rigid schedules, and thick procedures handbooks can now be made by teachers and students.

Summary

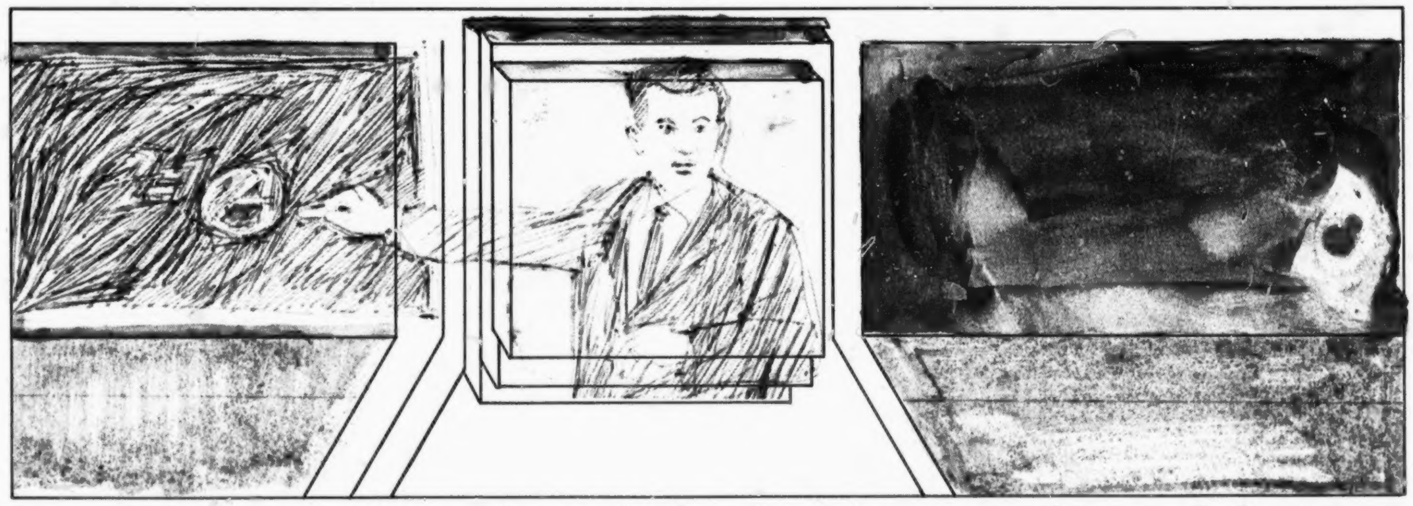
My objective has been to describe three kinds of professional support which the teaching team in the reorganized school might expect to receive: support from auxiliary personnel, from other professional specialists, and from one another. Support from one another is facilitated by the substitution of new organizational flexibilities for traditional organizational rigidities. I have not attempted to talk about individual teachers in conventionally organized schools because I believe strongly that such schools are obsolete and that they should be done away with.

The kind of reorganized school which I have described may, of course, be some time in coming. The forces for mediocrity in our profession are strong and incentives for imaginative innovation are few.

I realize that we are hemmed in by rigidities. Rigid boards of education expect us to build modern educational programs with staffing ratios appropriate only for maintaining the status quo. Rigid state departments of education and accrediting associations get excited if we schedule students for a class for less than 200 minutes a week. Rigid legislatures try to legislate us back into the nineteenth century. Crackpot pressure groups in the community are trying to take over the schools for their own political purposes. Rigid principals too often try to run their schools like military organizations, and rigid teachers teach rigid kids rigid lessons from rigid curricula. The trouble is that rigid teachers never die, they just get promoted and become rigid principals.

These and many related rigidities are quietly at work forcing our schools into remaining the medieval institutions they have become. It is on these and many related rigidities within our profession that teachers, administrators, and other specialists must cooperatively focus their energies and their talents. Overcoming such obstacles will not be easy. Perhaps, however, we have gained from the activities of the Year of the Non-Conference some insights into how we might proceed.

THE NEW TEACHER EDUCATION: PROSPECTS FOR CHANGE



James L. Fisher ■ Vice-President and Dean for Information and Research Services ■ Illinois State University

The questions of the relevance of the schools and teacher education programs to our changing society and the prospects for implementing change in our schools are so vitally important that a discussion of them can be approached only from a framework of humility topped with monumental self-confidence. I shall attempt to muster both. I have chosen to emphasize primarily a key aspect of the subject: the need to change teacher education programs. I choose not to flatter or commend, but rather to cajole and, I hope, stimulate.

History reveals a lag between social and educational ideals and the structures that reflect them. Institutions of a social nature, including schools and professional associations, have a way of gathering momentum which carries them beyond their zenith or usefulness. For these reasons, educational methods, techniques, even subject matter must frequently be tested against the nature and needs of our society to ascertain their relevance. Unfortunately, this testing has not been done to the degree that it must be done. Our progress in educational relevance, just as our progress in social relationships with our fellowman, has lagged behind our ability, even our willingness, to provide for it. We seem ready but not able. For instance, one has but to make a cursory examination of the literature on teacher education to find almost unanimous opinion that teacher education programs must be drastically revised and changed. As we converse with one another at professional meetings and in other settings, we rarely find someone who does not feel that changes are necessary, but we just cannot seem to get changes seriously considered and integrated into the system. There are examples of institutions and school systems making noteworthy efforts in this direction, but these are too few to have any real impact on change.

James L. Fisher

We in the profession often mistakenly blame the system — that great unidentifiable educational power colossus — for the inequities in education, failing to realize that we are the system and that change will not come until we are willing to bring it about.

Stability in the sense of human conduct or educational systems — a status quo of human institutions — has not long endured. It is perhaps what the poets have called "divine discontent." What tasted good yesterday is somehow a little flat today and a little less appropriate to the needs of our society. I am reminded of that classic, *The Saber-Tooth Curriculum,*[1] which seems to me to be so appropriate today. Back in the days, when the earth was flooded with water, schools taught spearfishing because the people had to spearfish to live. As the lakes and oceans dried up and were replaced by land and forests and as the nature of the animal kingdom changed so that it was necessary for man to hunt and live in a different manner, the schools still taught — you guessed it — spearfishing.

To make the case a little more specific, it is well known that the proportion of the work force in production jobs has dwindled to 40 percent, yet our school vocational curriculum is still contaminated by courses in machine shop, carpentry, printing, cabinetmaking, and building trades.[2] There are few prevocational programs for work experience in hotel-restaurant management, visual communications, industrial and engineering technologies, health and medical technologies, and police and fire services, to name a few. We are still teaching spearfishing. Our greatest minds have told us that the major problems of tomorrow will be population (particularly as we come together in an urban setting), the use of leisure time, the recognition of the oneness of knowledge, the absolute need that men must learn to live together, and a myriad of problems relating to mental health and old age.

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[1] Benjamin, Harold. *The Saber-Tooth Curriculum.* New York: McGraw-Hill Book Co., 1939.

[2] Feldman, Marvin J. "Public Education and Manpower Development." New York: Ford Foundation, 1967. (Reprint)

What are programs in teacher education doing to reflect the changing nature of our society? Some authorities say that there haven't been any substantive changes in teacher education programs in a hundred years. At the other end of this dramatic dichotomy, others say not only that educators should reflect the changing nature of society but that we should attempt to change that nature, that as educators we have leadership responsibilities. Recently, John Gardner spoke of the need for intentional change and said that educators should play a role in it. He dramatized his point rather simply by saying, "The future is at stake."[3] We are failing in both areas: our programs are not really changing and we certainly are not providing much leadership.

Now, assuming that I have made some case for change, that we agree that change is desirable and some of us even feel that it is imperative, let us take a brief look at the profile of those associated with teacher education — the student, the teacher educator, and the teacher — of the results that we are getting from our present teacher education programs. Keep in mind that the standard error of this profile is great and that not only are our measurement techniques inadequate, but we probably haven't been asking the right questions. But at least the literature of education, sociology, and psychology does tend to indicate certain rather uncomplimentary characteristics about our teacher education programs, teacher educators, and teachers.[4,5,6] I also realize that we still know very little about the nature of teacher personality (attitudes and values) and teacher effectiveness; however, for our purposes I am assuming that there is a relationship.

At the present time, our programs do not attract the best students. For the most part, students in teacher education are below average in terms of measured ability, their attitudes and values are essentially conservative, their needs are dependency-oriented, with stronger needs for acceptance and structure, and they have few intellectual needs. Teacher education faculty members are typed as being rigid, authoritarian, and reinforcing of the students' dependency needs.[7] Studies have indicated that American teachers have fewer verbal skills and know less about subject matter but more about educational methodology than their European counterparts.[8] Teachers apparently have little impact on the values and attitudes of their students[9] and find it difficult to understand persons with different backgrounds; they are not broadminded. Most of us come from upper lower-class or lower middle-class families and are thus upwardly mobile in general social status and tend to

[3] Gardner, John W. "The Universities as Designers of the Future." *Educational Record* 48: 315-19; Fall 1967.

[4] American Educational Research Association. "Teacher Personnel." *Review of Educational Research* 37: 215-372; June 1967.

[5] Gage, N.L., editor. *Handbook of Research on Teaching.* Chicago: Rand McNally & Co., 1963.

[6] Ryans, David G. "Characteristics of Teachers." Washington, D. C.: American Council on Education, 1960.

[7] Gillis, John. "Personality Needs of Future Teachers." *Educational and Psychological Measurement* 24: 589-600; Fall 1964.

[8] Nixon, George E. and others. *The Characteristics of Teacher Education Students in the British Isles and the United States.* U.S. Department of Health, Education, and Welfare, Office of Education, Cooperative Research Project No. 2518. Toledo, Ohio: University of Toledo, 1965.

[9] Coleman, James S. "The Adolescent Subculture and Academic Achievement." *Life in Society.* New York: Scott, Foresman and Co., 1965.

reinforce middle-class values. For instance, studies have indicated that ghetto teachers are convinced that children in their classrooms are unteachable and treat them accordingly.[10,11]

Most teachers indicate that they certainly would not teach again if given the chance to start over.[12] Other studies have indicated that women perceive and use teaching as an in-and-out career and that two-thirds of the women expect to leave teaching within five years.[13] For men, the anticipated career in education is "up or out" rather than "in and out." They go into teaching hoping to advance up the school ladder into administration or leave education and take employment in another field. Because teachers move in and out or up so much, they tend to keep the schools a field for amateurs whose rapid turnover restricts identification, commitment, and expertness, all necessary ingredients of professionalism. Most do not participate widely in community activities, do not give generously to charitable organizations, and are not highly respected in their communities.

Whose fault is this? If we continue to blame everyone and no one, little progress will be made. It does not have to be this way. Teachers in other countries are highly respected and turned to for advice and leadership, and I am convinced that American education today has this same promise. While we must continue to advocate increased involvement, contribution, and respect for teachers and our educational systems, prime attention and responsibility must be directed toward our university programs in teacher education. We must attract better people than ourselves into our profession — a bitter pill, but it's about time we took it. We must make programs in teacher education so dynamic, exciting, and substantive that we will attract the finest minds available. Last week I received a letter from one of our teacher education graduates, presently attending law school, who reminded me of the image of teacher education at Illinois State University, which incidentally is a pioneer in the field and a university where teacher education is and will continue to be important. I should preface his remarks by telling you that our College of Education is located on the fourth floor of Schroeder Hall. His letter went as follows:

> *The definition of Schroeder Hall, operative when I was at ISU, was, "Schroeder Hall consists of three floors of beer and one floor of foam." While somewhat nonjudicious, this definition points to a general student opinion that education courses lack substance, are poorly taught, and are irrelevant. I don't know how to deal with the substance question because you people at the University always fall back on equivocation and cliché. Maybe student critics today are really saying that the material does not relate to the real world — to the teaching job ahead.*

The letter went on, but you get the message. Some of you probably have received similar letters. They hurt, particularly when they come from bright students who have left teaching for other fields. I don't think we can hide behind positions that indicate that such individuals are malcontents or that they

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[10] Clark, Kenneth B. *Dark Ghetto.* New York: Harper & Row, 1965. pp. 111-53.

[11] Treloar, Jim. "A Reporter's Inside View of the Inner-City Classroom." Reprinted from *Detroit Free Press,* April 1967.

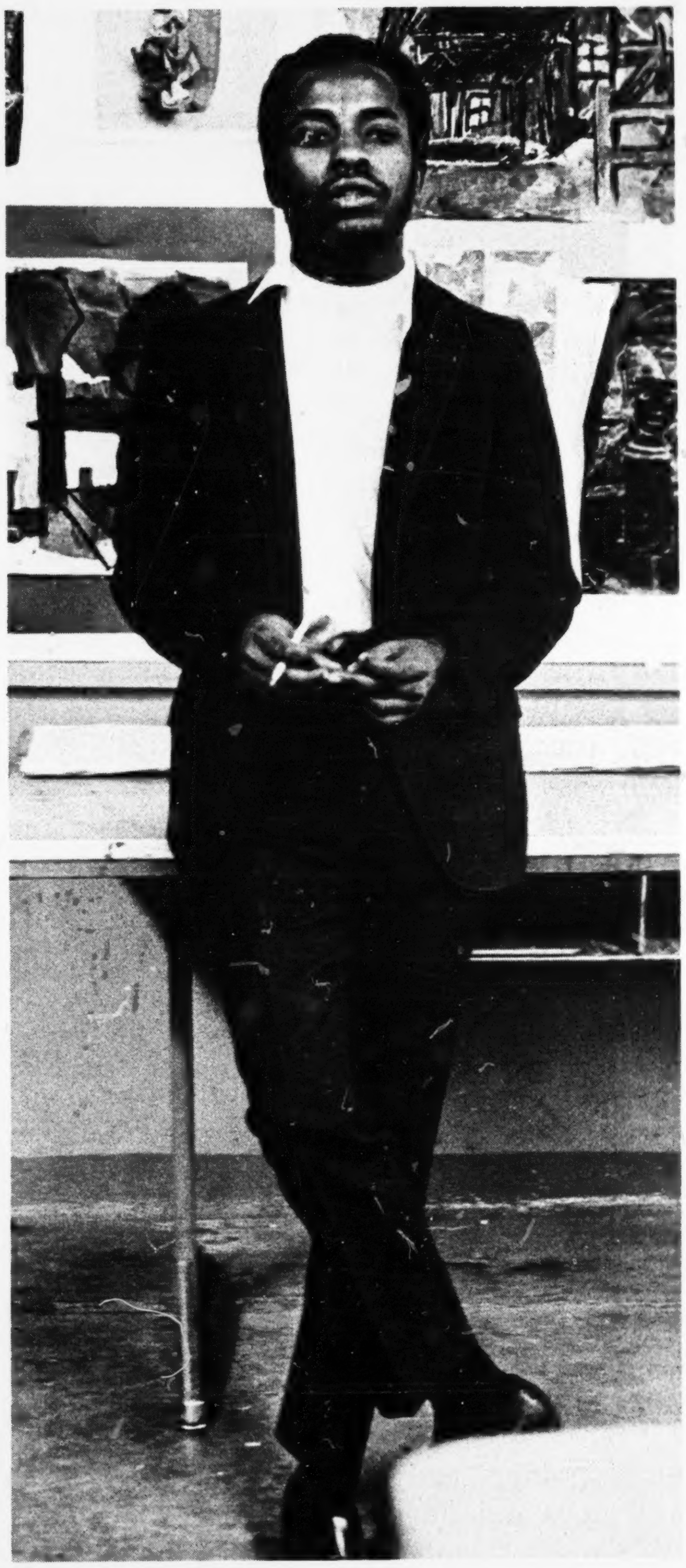
[12] National Education Association, Research Division. "Characteristics of Teachers: 1956, 1961, 1966." *NEA Research Bulletin* 45: 87-89; October 1967.

[13] Clark, Burton. "Sociology of Education." *Handbook of Modern Sociology.* Chicago: Rand McNally & Co., 1964.

do not really understand, that after they learn they will appreciate. The point is, while they were undergraduates, even while they were in secondary school, our programs and personnel in teacher education did not present the kind of intellectual excitement or vitality they were looking for.

Having identified the need for change and presented the problem, let's take a look at present programs in teacher education and what some of the prime criticisms of these programs are.

Most of the nation's teachers are still prepared according to the basic philosophy and tenets of the old two-year normal school and of the state colleges and universities that emerged out of the normal school-teachers college cycle. These programs still include 20-30 hours of professional education, including courses in American public education, secondary and elementary education, educational psychology, educational philosophy, and various other courses in methodology, topped off with student teaching. This curriculum is peppered with a disconnected pattern of liberal arts courses. Among other things, teacher education programs are criticized for being academic isolates — that is, they are often controlled exclusively by teacher educators — for putting method above knowledge, and for failing to relate theory to teaching. And some cry, "What theory?" For the most part, our teachers colleges, like our schools, still seem to be teaching spearfishing. Our most violent arguments seem to revolve around issues about whether we should add or delete 2-4 hours in the general education requirement for teacher education majors, or whether we should teach a unit on the museum in the course in American public education or the course in secondary education.



Teacher education has been attacked and condemned on all fronts. The only part of the program which has not been charged with being so much froth (perhaps *foam* is a better word) is the student-teaching experience. I am not proposing a position on the value of professional education course work. I am simply suggesting that it only makes good sense to evaluate yourself if most of your friends and colleagues take issue with what you're doing. As we know, relatively few colleges or universities concerned with teacher education have studied their own programs with any degree of precision or rigor. Chester Neuldling[14] has reported that two-thirds of 300 such institutions have no interdepartmental programs in educational research. Thus far, too little educational research is being done by institutions of higher education, and the fault for this does not lie with the lack of resources. The U.S. Office of Education has funds to support research on teaching and learning. It is interesting to note that of the sixty-nine projects currently going on with such support, forty-five are located outside of professional schools of education. But more on that later.

After culling out the clichés, you will find that most critics are convinced the principal thing wrong with teacher education today is that it does not possess a corpus of knowledge with any demonstrable validity, which is the necessary undergirding of an academic discipline. While teacher education has tried to gain academic credence by foundation-type courses, that is, academic disciplines that are relevant to education — psychology, sociology, history, philosophy, anthropology, and so on — education itself still does not have a corpus of knowledge of its own. It boils down, then, to the fact that the entity of education, as one looks at the curriculum of most schools of education, includes a bag of tricks that call for mastery of foundation courses and courses in methodology and techniques. What we lack, although efforts are being made by some persistent souls to ameliorate this position, is a body of theory against which we can test the relevance of all knowledge, of all academic disciplines, to education. Many educators believe that this theory is garnered from the study of the teaching process; some believe that our only hope is here. They feel that after careful study of the teaching process we must derive certain assumptions from which we can test the validity and applicability of other fields of knowledge as we include them in our teacher education programs. Today an encouraging number of scholars in education are addressing themselves to the question, "What is teaching?"

It appears, then, that to some we are on the threshold of excitement, discovery, and respectability in education. We would do well to reinforce the efforts of men like Flanders, Bowers, Lesser, Bush, Taba, Hermanowicz, Hazard, Bellack, Chandler, Bernstein, Biddle, Medley, Mitzel, Smith, Waimon, Gage, Verdun, Jackson, and Glaser. We must also heed the efforts of learning theorists like Skinner, Spence, Holland, and Stolurow. Exciting developments in teacher education are under way at universities like Stanford, with its super staff at the Center for the Study of Teaching; at Teachers College, Columbia, which finally seems to be waking up; at Northwestern, with its Conant-type tutorial and clinical program; and at the University of

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[14] Neuldling, Chester L. "Art of Teaching: One of the Greater Humanities." *Improving College and University Teaching* 15: 133-34; Summer 1967.

Chicago, with its "school team" approach. There are others, but they are too few, and the impact of any remains to be felt.

As I have read and talked of the "new teacher education," it seems that certain characteristics and directions, or at least questions, emerge for all teacher education, characteristics that all who are involved and interested in teacher education should keep in mind as they develop their ideas and plans for increasingly relevant educational experiences for boys and girls.

1. Many of the changing teacher education programs are involving in the development of policy all those who are accorded responsibility for the education of teachers. This involvement smacks of an interdisciplinary partnership to the degree that most of us have not envisioned. The historian, the English professor, the mathematician, the scientist, the artist are being involved in the development and implementation of policies and programs in teacher education. For instance, in some evolving teacher education programs, academic majors for secondary school teachers are being planned jointly with appropriate departments in arts and sciences. In the future, perhaps even secondary school systems might be brought into this planning picture.

2. It appears obvious that efforts to encourage increased scholarship on the nature of teaching must be accelerated. A disproportionately large amount of energy has been devoted to moralizing and speculating on what teaching should be and relatively little on what it is. Funds must be made available by universities to encourage scholars to pursue the importance of the question as it relates to present and future practice; and just as important, significant efforts must be made

to communicate the tentative judgment of research findings in the area. Some of us know full-time teacher educators who couldn't tell us more than a sentence about Flanders' "Interaction Analysis" or Medley and Mitzel's "Techniques for Measuring Classroom Behavior." Once these systems are validated and firmed up they must be communicated and, it is hoped, integrated into our educational systems.

3. Programs at Stanford, Columbia, and a few other places are showing us that we must integrate what we already know about learning theory into the professional education experience of the teacher trainee; for instance, the importance of establishing "set," that cognitive rapport between pupils and teachers that is necessary to obtain immediate involvement in the lesson; the importance of establishing appropriate frames of reference; the value of achieving closure; the use of rewards and punishment, usually called reinforcement; the use of feedback, or providing knowledge of results; and the value of frequent testing, of immediate evaluation and discussion. Systematic use of these concepts is especially important during the student-teaching experience where in many institutions they seem to be virtually ignored.

4. Admissions procedures in colleges should be modified to include more meaningful criteria. For the most part, schools of education admit students on the basis of grade point averages, intellectual aptitude on test scores, written letters of recommendation, and interviews, none of which appear to relate highly to subsequent teaching success. Some schools add things like speech checks and value tests, and perhaps more use only grade point averages. More discriminatory and valid selection procedures are needed. For instance, at Stanford, through microteaching,[15] a procedure which calls for an actual small-scale teaching experience which is evaluated by students, faculty, and prospective teachers, prospective teachers can be sorted out with reasonable accuracy before being formally admitted to teacher education programs. This is an effort worthy of careful study and more research. Many believe that variables like grade point averages, test scores, and the like should be retained in the selection procedures, not so much for predictive value, but to help develop a status in the university community. They would raise admission requirements to levels as high or higher than other programs simply to ensure academic respectability. Others say that we can ensure this simply by making the teacher education curriculum so tough that it will attract and retain the best minds.

5. Relationships with the public schools must be increased and must become more meaningful. Experienced teachers and administrators in the schools must become involved with university professors of all disciplines that relate to the preparation of teachers. Today in most cases they are not even closely involved with educationists. The clinical professor at Northwestern or Portland or Reed is a good example of the close relationships that evolve out of dual appointments, that is, persons with joint appointments on the staffs of the public school and the university. These persons wear two hats and are on two payrolls, have two offices, teach in two institutions, and are accorded academic status and respectability in both. Their continued appointment is contingent upon their being employed in the public school. The University of Chicago, through a recent Ford Foundation

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[15] Allen, Dwight W. *Microteaching: A Description.* Palo Alto, Calif.: School of Education, Stanford University, 1966.

grant, is preparing to educate full faculties of teachers and administrators to go out and man complete schools. In New York City, all of the teacher education institutions, both public and private, are intimately involved in "The Campus School Movement." There are now over a hundred schools directly affiliated with individual universities. New York also has a "teacher-professor lend-lease program" in which outstanding teachers at both levels are exchanged for a semester or a year. The opportunities for mutual growth in such associations are limitless.

6. As we plan our program of the future we must consider as a transcendent theme the importance of an increasingly urban civilization and its attendant problems of proximity, poverty, and wealth. Every teacher education program should have at least some provision for students to work with and be exposed to techniques for working with disadvantaged youth. Some feel that in many institutions these programs should be made mandatory; otherwise, experience has indicated, they will be vastly undersubscribed. Both research and experience indicate that teachers are not anxious to teach in culturally disadvantaged areas. Perhaps the possibilities of encouraging intelligent ghetto youth to prepare to teach in ghetto schools should be explored, or of encouraging returning Vietnam war veterans to prepare to teach in the inner city. The point is that our cities give violent testimony to the fact that our schools are not beginning to do the job, and most of our schools of education are still asleep to the fact that they have a responsibility in the area. At least they aren't doing anything about it.

7. Tomorrow's teacher education programs must also include international concepts. George Dickson's efforts at the University of Toledo are just a beginning. Research as recent as 1967 indicates that more than 30 percent of our teachers live and teach in the communities in which they were born,[16] and most of us are teaching in our home states. For the most part, we're pretty provincial. We need international exchange programs of both students and faculty. We need to know about the educational process in other countries and cultures. As Alfred Balk recently stated, "In . . . education . . . the question is not whether to increase cooperation with other nations; it is how to become the leader and chief catalyst in cooperative endeavors." [17] So here is John Gardner's intentional leadership again.

8. The only facet of the professional teacher education curriculum which has not been riddled by the barbs of criticism to the point that it is recommended for elimination has been student teaching. Even James B. Conant was unequivocal in his support for student teaching.[18] Teacher educators themselves are unanimous in agreeing that student teaching is the most important aspect of the program in teacher education. It would follow, then, that as we plan change in our teacher education programs we should use the student-teaching experience as a point of departure. Perhaps to a degree, by using this tack, we can have our cake and eat it too. For instance, as we look at the classic teacher education program, could not courses in American public education, elementary and secondary education, educational psychology and philosophy be

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[16] National Education Association, Research Division, op. cit.

[17] Balk, Alfred. "I.C.Y.: A Report on the White House Conference on International Cooperation Year." *Saturday Review* 49: 24-28; January 22, 1966.

[18] Conant, James B. *Education of American Teachers.* New York: McGraw-Hill Book Co., 1963.

subsumed under the umbrella of student teaching and a series of seminars or tutorials conducted before, during, and after the student-teaching experience in these subjects? Perhaps Stanford's microteaching approach could be used here. And could not university professors and secondary school supervising teachers form teams using student teaching as a frame of reference? Or at the very least, could not the teaching internship experience be plugged into all of these courses? If the former were adopted, not only would the education professor be more meaningfully involved, he would be freed for scholarly activities, student consultation, interdisciplinary dialogue, and a host of other important activities that somehow seem to be neglected due to the press of classroom-teaching responsibilities. He could also spend more time preparing for the classes that he does teach.

9. Perhaps as we plan our new teacher education program we could take an even more simplistic approach to ensure that future teachers are well grounded in the essentials. It seems fair to assume that a teacher should know how to read, write, speak, think on his feet, and reason. Perhaps teacher educators, in conjunction with scholars in other areas and the schools, could develop methods to adequately test the ability of prospective teachers in these areas. For instance, a student could not be qualified to teach high school history until he qualified at a certain level on a history examination. Remedial clinics could be established to help potentially able students learn to write and speak. What I am saying is that I'm not sure it is a fair assumption for teacher educators to believe that because a student has six hours of English he can write, or that with three hours of speech he can speak, or even that a student with 24-40 hours of biology knows enough to teach the subject. Let's put the shoe on the other foot for a while and put the academicians on the spot. Professional associations and accrediting agencies might even get into the act. We might even end up with better classroom instruction.

10. Many people believe that the most significant wrong in teacher education is that in the great majority of cases education terminates with the granting of the degree. It would seem obvious that part of the responsibility of the new program would be to make teacher education a continuous function. There are a variety of service roles the university might play in helping the teacher after he receives his degree. Keep in mind that this means the university should underwrite a full-fledged program of support for teachers in the field. These service programs might be integrated and operated out of the state office of public instruction, but the important thing is that they be continuous and based on the most effective educational methodology available at the moment.

For instance, how about demonstration teams? While these could take many forms, a team could visit the schools, make presentations, demonstrate new techniques and concepts, observe the performance of teachers, and make recommendations. Operating out of the demonstration-team idea could be subject area specialists—professional historians, mathematicians, counseling specialists who could advise teachers and staff about how to teach the new math, how to better explain the causes of the Civil War, or how to implement a more effective guidance program — as well as specialists to tell teachers about developments in adolescent psychology, student evaluation, and new audiovisual materials. In this program the university would also play the role of morale booster. While this idea is difficult to conceptualize, many teachers are badly in need of someone to encourage them, to spur them on to greater heights.

Universities might also consider establishing book and equipment libraries. The practice would be much like that of the Economic Opportunity Act, which in theory is supposed to provide needed community services until the communities are convinced that the services are important and can assume responsibility for them on their own. For most schools, laboratory equipment, books, and other resources are scarce. A good example is the paucity of science equipment in many grade schools. Faced with this problem, teachers are often forced to skip a lesson or experiment that they otherwise would conduct. The students are the ones who are shortchanged. Or how about a teacher resource center on campus? These centers would occupy permanent locations and would be places where teachers, administrators, and other school staff could go to at least attempt to solve a gamut of problems.

The university must also play a much greater role in bringing teachers up to date. For the most part, such efforts have been stimulated by foundations and the federal government. Although I am not as concerned about the source of money as about the job getting done, teachers must be brought to the campus and the campus must be brought to the teachers periodically, and I'm not talking about an occasional teacher here and there. I'm talking about all teachers, for it is naïve to assume that a second-grade teacher who graduated in 1952, who has never returned to a college or university campus, is fully aware of the changes and developments in elementary education that have occurred since he began teaching.

11. If one accepts the spirit of the importance of "the new media" as spelled out by Schueler, Lesser, and Dobbins, [19] and I think one must, it is obvious that the schools of tomorrow will involve a host of paraprofessional personnel. Tomorrow's teacher will serve as a leader of a group of specialists, some professionally trained and others providing clerical kinds of functions. The teacher's role will be one of coordination, leadership, and meaningful student contact. Without going into detail regarding the functions of this new specialist group, it is obvious that the schools will need a whole new personnel structure. The question? Also obvious: What are teacher education programs doing not only to prepare the teacher for this new function but, perhaps as important, if not more so, to prepare the new personnel? The answer? Virtually nothing. If teacher education programs don't start asking and attempting to answer the questions, the responsibilities will be assumed in a less effective manner by the public schools and the educational publishers. Not that both can't help, but it is more difficult for the public schools to communicate, and such efforts dissipate their teaching resources; and one is forced to question the influence of the profit motive of the educational publishing business.

So far, I have discussed the need for change, suggested some places where exciting work is being done, and posed ingredients for tomorrow's teacher education programs. However, a major problem remains. Assuming that we agree, at least in spirit, with the need for change, how are we going to pay for experimentation and modification in our teacher education programs when most of us already are strapped financially? The recent article by Schrag[20] describes the renaissance at Teachers College, Columbia. He emphasizes that, as for most of us, the major problem at TC is financial, but he goes on to say that TC will not accept this limitation. Like TC, none of us dares submit to this often-used excuse. While money is a problem, it is not an insurmountable one. There are sources of funds and support available to energetic, innovative programs in teacher education.

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[19] Schueler, Herbert, and Lesser, Gerald S., assisted by Dobbins, Allen L. *Teacher Education and the New Media.* Washington, D. C.: American Association of Colleges for Teacher Education, a department of the National Education Association, 1967.

Simply stated, there is more money now available for educational research than ever before in the history of American education; there are funds available for every one of the points discussed. In spite of talk to the contrary, moneys allocated to the U. S. Office of Education, the National Science Foundation, the National Institutes of Health, the Office of Economic Opportunity, and other federal programs are at an all-time high. In spite of McGeorge Bundy's belt tightening, Ford continues to grant millions in support, and Carnegie and other foundations have money available, although the main source is the federal government. It is perhaps safe to conclude that federal allocations will begin to level off, but one is forced to equivocate even here.

I am not suggesting that there is a wealth of federal money unspent. Rather, it is a question of what the money is being spent for and who is getting it. For the most part, the "have" schools have research and fellowship programs funded and the "have not" schools are not really much better off than they were five years ago. It is important, however, to note that various professional organizations like the American Association of State Colleges and Universities are lobbying for more federal money for the emerging state colleges, most of which are devoted primarily to the preparation of teachers. I look for significant differences in this area in the future.

Undoubtedly, one reason some critics feel that we have been pumping money down a bottomless well is because we have failed to address ourselves to basic questions. Most of the money granted has been for program development and not for theory development or research activity. For instance, it has been reported that fifteen years of innovation in team teaching have left us with almost no research evidence.[21] We conduct fragmented pieces of research, with little integration and coordination, and we have piecemeal workshop and fellowship opportunities the recipients of which are quickly swallowed up by the public schools after they return; and what significant research is accomplished is not being communicated and certainly is not being implemented broadly in our nation's schools. It is obvious, then, that what we need is more money in basic research, especially as it relates to the teaching process, much broader participation in workshop and refresher programs, and better systems of communication. Among ways to do this might be more matching grants by the federal government and direct federal grants to institutions and school systems, with emphasis placed on evaluating expenditures rather than on making money available for specific purposes.

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[20] Schrag, Peter. "Teachers College: John Dewey with a Hard Nose." *Saturday Review* 50: 62-64, 75-76; December 16, 1967.

[21] Joyce, Bruce R. "Staff Utilization." *Review of Educational Research* 37: 328; June 1967.

What are some of the present funding possibilities? Recently R. Louis Bright, associate commissioner for research in the U. S. Office of Education, said that teacher educators are not even close to meeting the challenge posed by computerization. There is federal money available to assist in instruction, planning, organization, administration, and research. Right now $28 million is being spent under Titles III and IV of the Elementary and Secondary Education Act and Titles VI and VII of the National Defense Education Act. Unfortunately, perhaps, most of this research is being done by nonteacher educators. There are moneys available for area fine arts projects, for Head Start and Upward Bound programs, for New Careers programs, for training educational researchers and research-related personnel, for programs to educate the handicapped, for training in the allied health professions, for programs for older Americans, for continuing education, language and area studies, mental health, teacher information centers, and a host of others.

Perhaps the most potentially important piece of legislation related to progress in teacher education is the Education Professions Development Act. If it is funded at levels approaching the authorized amounts, the act undoubtedly will be one of the most significant pieces of education legislation ever passed by Congress. All teachers and teacher educators should become familiar with the act and its many possibilities. For instance, $2.5 million is authorized to identify capable youth in secondary schools who may be interested in careers in education and to encourage qualified persons in other professions to enter or reenter the field of education; $50 million is authorized for grants to states to help local communities with teacher shortages set up short-term or intensive training programs and in-service training for experienced teachers, to obtain the services of teacher aides, and to provide them with necessary training; $70 million is authorized for grants to universities and other agencies for training not only teachers but teacher trainers, teacher aides, and other teacher personnel; another $21.5 million is authorized to help institutions train persons who are serving or preparing to serve as college or university teachers, administrators, and educational specialists; $195 million is authorized for grants to institutions of higher education for an extended teacher fellowship program to include teachers in preschool, adult, and vocational education as well as those in elementary and secondary education. The EPDA is so important that an advisory committee comprised of representative members of the teaching community has been appointed and reports directly to the President of the United States.

So we have reason to be encouraged as we look to present and planned federal programs, and we have begun to tap private industry and foundations for support. The future is bright on the funding front.

It appears, then, that there is no question that we must have dramatic change in our educational efforts, that there are those who are anxious and able to effect change, and that there is more money available for change than ever before in our history. We have the need, the inclination, and the wherewithal. Never before have such opportunities existed. Let's get about our business.

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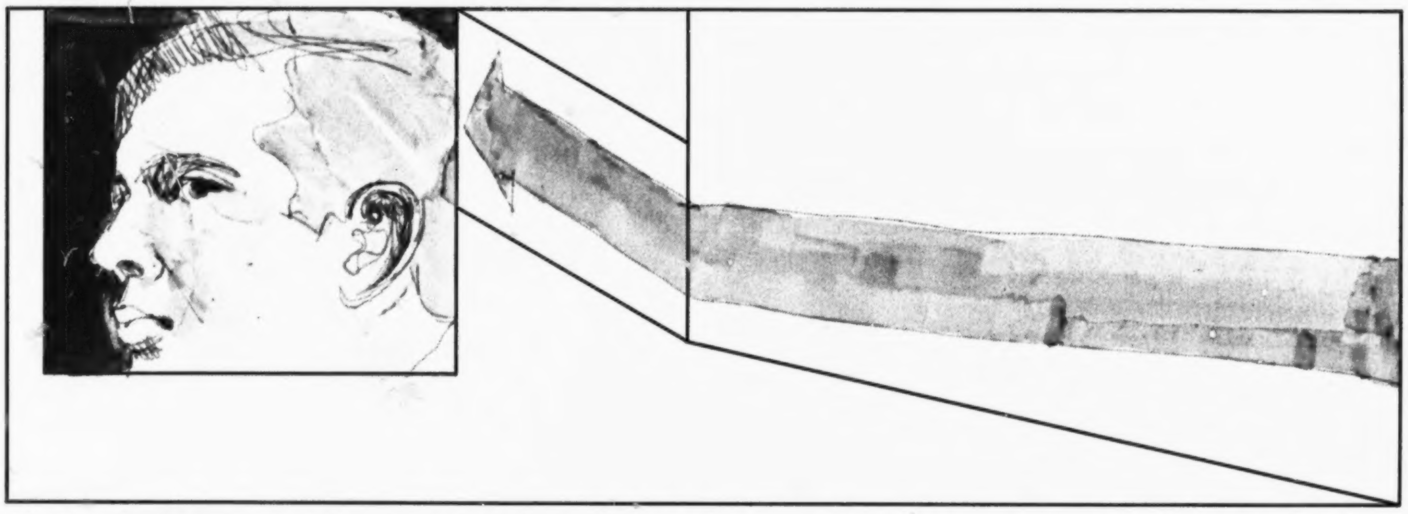
WHERE ARE WE GOING AND HOW CAN WE GET THERE?



Kevin A. Ryan ■ *Director, Master of Arts in Teaching Program* ■ *Graduate School of Education* ■ *University of Chicago*

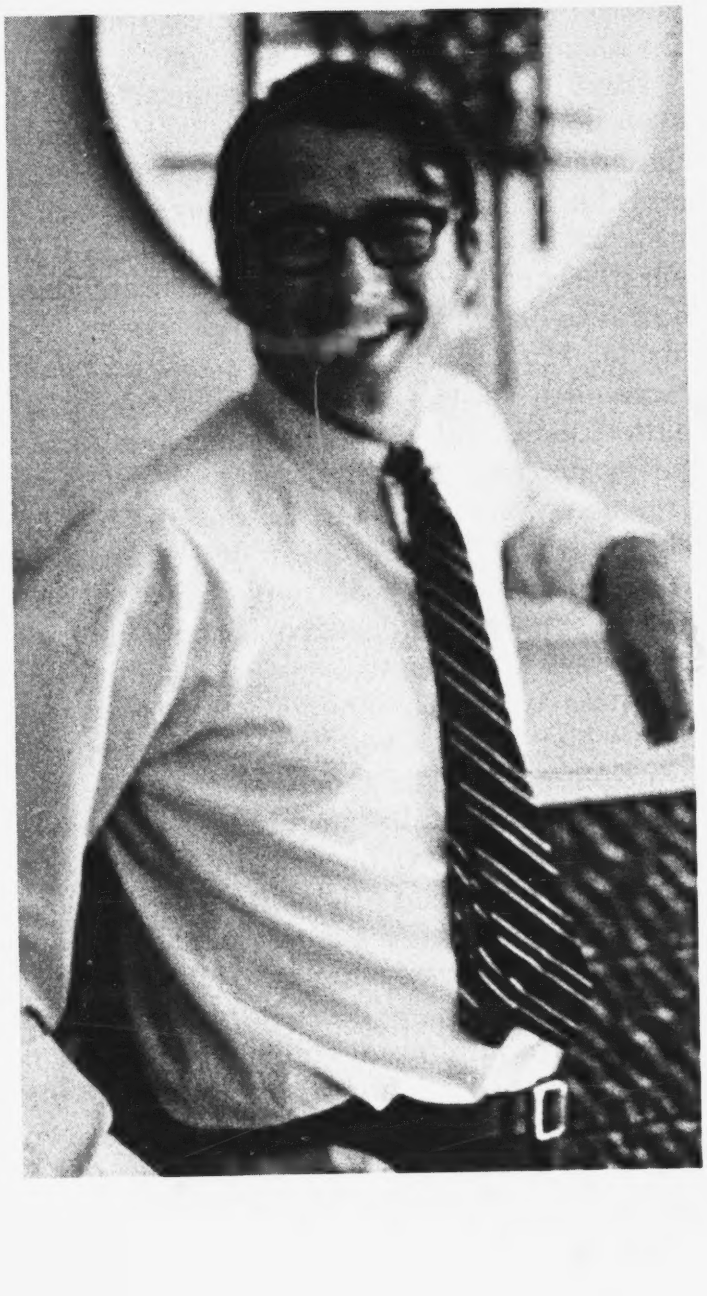
Educators today have the responsibility to shape the teaching profession. In twenty-five years American education will be in the hands of our students. There can be little doubt that our vision, or lack of it, will have profound effects. It would seem useful, therefore, to project our thought to the future, to extend some of the current pioneer efforts to hypothetical fulfillment.

Prophecy is the occupation of wise men and fools. While I seriously doubt that this discussion of the schools and the profession in twenty-five years will qualify me for the first group, the wise men, I hope it will not mean that I have cast my lot with the fools. I submit this potpourri of predictions and premonitions well aware of the vagaries of history. Much happens in twenty-five years. Who among us in the year 1943, as we listened at our radios to Fibber McGee's closet crashing in on him, would have foretold the coming of "Petticoat Junction" in living color? When the *zaftig* Sophie Tucker with plunging neckline was before the nation's eyes, who would have anticipated Twiggy in the mini? In 1943, when the Brooklyn Dodgers were the kings of Flatbush Avenue, who would have predicted that one day they would be playing in the smog of Los Angeles? And who, twenty-five years ago, would have thought that the tinkerings of a few scientists in an abandoned squash court at The University of Chicago would thrust us into a new era, the Atomic Age? We can be certain, then, that by 1993, the world will have pulled a few surprises on us.

Before trying to read the fortune of the future, let us see what the tea leaves of the present tell us. What is the current mood of educators? For one thing, the old egg-carton school building, with its standardized classrooms and standardized teaching, is passing. With it is going the school day dominated by the bell signaling the beginning and the end of neat slices of time — 45- or 50-minute packages of knowledge to be uniformly consumed by all. We are being forced to abandon the belief that children learn best in classrooms of twenty-five or thirty pupils and in quiet libraries with quiet books. We are moving away from the idea that education is something that a teacher does to a student, something he impresses on a child, like Mr. Lock and his tabula rasa. We are rejecting the notion that all children, even within the same track, should receive the same information and training and proceed at the same rate. Although there are still great counterpressures, there is a growing disaffection with the principle of solving the problems of American education by programming the children with more and more information. We are becoming vividly aware that we are not providing equal educational opportunities to our minority groups and that we cannot survive as a free society without quickly and dramatically eradicating our present inequalities.

At the same time that we are rethinking the education of children we are rejecting the idea that we can train teachers for today's classrooms using the same old mold and the same tired formula. We are doubting that our present organization of the profession is adequate. We are recognizing that our traditional job description for the classroom teacher is unrealistic and unworkable. We are leaving behind all these ideas and structures because we are discovering that even our more intense efforts of the last ten years are fundamentally bankrupt. We have been getting better and better at preparing children for a world which no longer exists.

Kevin A. Ryan



The School of 1993

What, then, will replace our assembly-line schools? What follows is an admittedly optimistic view of the 1993 schools. Although I make the predictions with great hesitation, I am firm in the belief that on some cold winter's night in 1993 these predictions will provide some diligent graduate student reviewing the history of TEPS with a good laugh.

Frankly, I have no idea what the schools of 1993 will look like from the outside or how the bricks and mortar will be arranged. Some may be housed in huge skyscrapers. Some may be in educational parks, miniatures of our present college campuses. More intriguing, however, is what they will look like on the inside. My guess is that there will be much more open space. Students will move about quite freely. There will be much less structuring of time than at present. Right now, regimentation is necessary because we are unable to truly involve students in the essential task of the schools — learning. Once we are able to stimulate students and sustain involvement, regimentation will be dysfunctional and will pass away. The maintenance of the student's high interest will be a major operating principle. The child's natural curiosity will be king and carefully nurtured. The schools of 1993 will be imbued with respect for human diversity and originality. The curriculum will finally become a careful and rational order of learning experiences. Like regimentation, grades, too, will be dysfunctional and pass away. Our present grading practices will be looked upon by future generations as we now look upon duncecaps or perhaps even thumbscrews.

To foster deep involvement, much of the school will be devoted to learning environments toward which the resource centers of our most advanced schools are just beginning to move. Professionally produced films and tapes on almost every subject will be available for individual or collective viewing. Students will have at hand materials and equipment for all sorts of projects, whether it be re-creating the life of the Pilgrims in New England or simulating the life of the first residents on the moon. Much of what students struggle to master now will be learned through games. It does not seem too far-fetched to suggest that children will learn languages through conversations with other children in distant countries. A child may have a Telstar pal in Paris and another in Peiping and daily talk to each using his video phone. To counteract life in the man-made environment that is concomitant with urbanization, students will spend a good deal of time on field trips which occasionally will be in quite distant and exotic places. Where better to get the total impact of Greek culture than in Athens?

The student will do much of his exploring of the world in school, however, at his computer-information bank console. In terms of increased learning, computer-assisted instruction (CAI) will be the real breakthrough. By 1993, the present computer consoles being used in the Suppes-Atkinson project at Stanford[1] will be museum pieces, viewed with the same curious affection which we now have for the Model T Ford.

Today, as I read about CAI in the educational journals, I get the feeling that the teaching profession is being handled rather gingerly, that the CAI people are employing a soft-sell approach. One gets the impression that they are selling a new detergent. CAI is represented as being a wonderful new formula that will take the drudgery out of teaching and do the dirty work, such as basic instruction and drilling in the skills of reading, spelling, and arithmetic. A truer analogy may be to a completely automated household that will leave the housewife with little to do except wonder about her fate. We are being sheltered from the great shock that the self-pacing, individually focused CAI units may be able to teach everything from the ABC's to metaphysics, from addition to the newest science, with greater efficiency and effectiveness than most fine teachers. I am talking here about CAI units that act as individual tutors, that contain all the knowledge and theory developed by mankind; computers that are programmed with all we know about learning theory and put it into practice, that are programmed with all the learning characteristics of each student and operate from up-to-date profiles of the skills and knowledge of each student. It is expected that these CAI units will be programmed to teach not simply skills and information but also the important intellectual processes. Given the assumption that these units will be continually pacing the student at his maximum level and thereby cutting out all needless repetition and relearning, it does not seem unreasonable that in two or three hours a day at his console the student will be learning three or four times what he is presently learning in school. In brief, we may have the educational ideal of the student at one end of the log, and instead of Mark Hopkins at the other end, we will have the IBM Mark 93.

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[1] Suppes, Patrick. "The Computer and Excellence." *Saturday Review* 50: 46-50; January 14, 1967.

Many of us are uneasy with the idea of children spending huge amounts of time interacting with computers. Some feel that the experience will be dehumanizing and that the educational process will become depersonalized. Although this is a very real possibility, I am sure that the same thoughts were stirred by the advent of the book. Too, we should keep in mind that much of what is at this moment going on in our classrooms is dehumanizing. Besides the legions of students who are bored with the content and pace of instruction, there are many who are being left behind and cast aside. For many students our traditional classrooms are prisons where they are fettered by frustration and ignorance. However, we still have ahead of us the important task of harnessing the computer. As John Goodlad of UCLA pointed out recently, it is our challenge to "find out how human beings and machines are to live together productively in tomorrow's learning-teaching environment." [2]

A major benefit of the new efficiency that will come with computerized instruction is more time — time to develop the student's social, moral, and aesthetic dimensions. Students at all grade levels will have much more time to work and play together. It is hoped that the distinction between these two words, *work* and *play*, will be lost in the process. Although much of the student's day will be spent in a variety of different groups, all students will be involved continually in independent study. Right now, independent study is like international peace: everyone is for it

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[2] Goodlad, John I. "The Future of Learning and Teaching." Address delivered at the inauguration of Sam M. Lambert as executive secretary of the National Education Association, Washington, D. C., October 20, 1967. Los Angeles: the author, 1967. p. 9.

but no one can quite bring it off. Further, all students, not simply the athletically gifted, will have more training in how to use their bodies. In the present school curriculum there is little room for the dance, for singing, for artistic expression generally. In the school of the future, much of the day will be devoted to those often overlooked but most humanizing activities.

The New Teacher

If we are to have a new school in 1993, we will need a new teacher. Of this one thing we can be sure. The role of the teacher as we now know it will be changed drastically. With the coming of movable type and the easily accessible book in the fifteenth century, the teacher no longer had a monopoly on knowledge. His role as total source of knowledge was severely altered. The technological revolution taking place in the schools today will demand a change of teacher role of an even greater magnitude, and this is happening already in many schools. In 1993, many of the present roles performed by teachers, such as information dispenser, drillmaster, disciplinarian, money changer, record keeper, and grader, will have vanished or will have been taken over completely by paraprofessionals.

What, then, will be the teacher's role? One possibility is that, whereas we once had teachers functioning as entire instructional systems, in the future the teacher will be the director of an instructional system.[3] He will have at his disposal many instructional aids, such as simulators, programmed materials, video tapes, films, and computer-based learning systems. As director of a large system, the teacher will have to be a skilled diagnostician, aware of the abilities of the students and the potential contributions of each component in his system. Since different students have different learning styles, the teacher's main task will be to apply the systems with intelligence and sensitivity. In doing this, he will be supported by many specialists and paraprofessionals who will be working directly with children. Bruce Joyce[4] has developed this idea quite fully.

As the teacher assumes the role of director of an instructional system, he is going to need specialized help. At present, there seem to be three groups of specialists that will support the teacher, three additional role groups that will be added to the school.

The first group we will call inquiry specialists. These people will be highly, perhaps narrowly, trained to aid children in mastering specific inquiry skills. Examples of some of these are specialists in search skills and problem solving, specialists in group discussion, specialists in learning games and game theory. While many of these specialists may be linked to a particular discipline, many cut across several disciplines, being essentially process specialists.

The second role group will be that of therapy specialists. I am not speaking here of what we presently refer to as counselors, professionals charged with vocational and academic guidance. That role, too, may pass in the age of the computer. In 1993 we will know much more about mental health and human relations. The whole area will become much more important if we are to keep civilization from falling apart. Therapy specialists will work with the instructional staff to improve the social climate of the school. Their major task, however, will be to help individual children gain a greater insight into and control over their own behavior.

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[3] Allen, Dwight W., and Ryan, Kevin A. *A Perspective on the Education of Teachers in California in 1980.* Project 1.2 Teacher Training, State Committee on Public Education. Sacramento: California State Department of Education, November 1966. pp. 31-32.

[4] Joyce, Bruce R. *The Teacher and His Staff: Man, Media, and Machines.* Washington, D. C.: National Commission on Teacher Education and Professional Standards and Center for the Study of Instruction, National Education Association, 1967. 28 pp.

The third group will be scholars and researchers, people who are working at the frontier of knowledge but who are also working in the schools at all levels. Right now there are relatively few people working on the edge of knowledge. In twenty-five years we can expect two things: a larger frontier of knowledge and many more people engaged in scholarly pursuits. These scholars-researchers-teachers will relate to schools in many different ways, depending on their own abilities and desires. Some will help guide independent study projects. Others will guide group projects which will often further their own research. Some will teach in settings that look very much like our present advanced doctoral seminars. Few, however, will spend more than ten or fifteen hours a week with students. The schools will share many of these scholars with industry and research centers.

All three of these role groups will share in the teacher's traditional role of model for children. However, in the school of the future, the professional staff — the process specialist, the therapist, and the scholar-researcher — will be chosen especially because they are examplars of man at his finest, man striving to know and to love.

There is one group of teachers who will be immensely important in the 1993 school and who have yet to be mentioned. I am speaking of the students. Much of the instruction and supervision of children will be done by other, slightly older children. This will be done, not for economy, but because we will put into practice what every teacher knows — that one of the best ways to learn something is to teach it. Learning by teaching, a very slight variation on Mr. Dewey's theme, will be a major cornerstone of the schools.

How Can We Get There?

Here I am going to retreat from these somewhat heady heights to which many may not wish to go. I would like to move into another area where many will also object to traveling.

The Structure of the Profession

Few people are satisfied with the way we have structured the elementary and secondary segments of the teaching profession. What appears on the surface to be a neat, efficient, and egalitarian system reveals several severe internal problems. For one thing, there is no career line for the classroom teacher. Teaching is a one-step career. Excellence in the classroom is rewarded by promotion out of the classroom, away from children. One type of promotion in high schools is to department chairman. This means the gifted teacher teaches fewer students and gets to open the mail from the book companies. Also, he is expected to supervise other teachers, a job for which he is rarely trained and for which he may have no interest or aptitude. Another type of promotion is to administrator, which means he teaches no children. And, of course, there are those, many of the best, who promote themselves out of teaching completely.

Another problem is related to the job requirements. We give a freshly certified 21-year-old the awesome responsibility for the learning of large numbers of children for an entire year. We expect him to be highly skilled in all aspects of teaching, from control of content to human relations, from motivation to evaluation. And then we expect him to spend the next forty years of his life carrying out essentially the same responsibilities. This seems to be an unrealistic demand on the beginner and a deadening prospect for the experienced teacher.

Still another problem in the way we structure the profession is that we make little room for individual differences. It is odd that we teachers, who are continually faced with individual differences, have no way of acknowledging them in our profession. The individuals who come into teaching bring with them different talents, different weaknesses, and different interests. Nevertheless, we insist that all teachers be all things to all children. Instead of tailoring the teaching assignment to an individual, we tend to force all teachers into the same, easily interchangeable molds.

At the inauguration of NEA Executive Secretary Sam Lambert, Harold Howe put several questions to the teaching profession, two of which bear directly on its structure. Howe asked, "How can we get the teaching profession to develop a hierarchy within its ranks? How can the profession be encouraged to adapt the best aspects of a system that obtains in colleges and universities, where the strongest teachers receive larger responsibilities and larger rewards?"[5] One answer to these questions and our present difficulties is a differentiated teaching staff. The differentiated teaching staff is based on the idea of human differences in intelligence and commitment and the observation that presently there are many roles assumed under the name "teacher." A differentiated staffing system replaces the system in which all teachers carry out the same responsibility for the same reward. Although many schools have made moves toward staff differentiation, I know of none that have such a daring plan as the one devised by the teachers and administrators of the Temple City, California, schools.[6] The teaching staffs of the Temple City elementary and secondary schools are restructuring themselves into four different categories of teachers. To the four teacher categories are being added academic assistants, educational technicians, and various types of paraprofessionals. Each of the four teacher categories has a different job definition and salary scale and calls for different competencies. While all will be classroom teachers, much more in terms of time and effort and leadership will be demanded of some. People in higher categories will be responsible for long-range planning in curriculum and instruction. Some will have major responsibility for in-service programs. Others in lower categories will have more restricted requirements, frequently acting as team members. The range of competence and responsibility is reflected by the salary scale that starts at $6,000 and reaches $24,000.

The differentiated teaching staff would appear to have several advantages. First, it provides a career line within teaching and hopefully will keep the brightest and most able teachers in classrooms in front of children. It does not seem unjustifiable that the outstanding teachers in the school should receive salaries comparable to those of the top administrators. Second, the differentiated teaching staff is designed to make the best use of each teacher's talents, especially by providing more opportunity for specialization. For example, the teacher who is especially

[5] "Commissioner Howe Asks Probing Questions of NEA." *NEA Reporter* 6: 4; November 10, 1967.

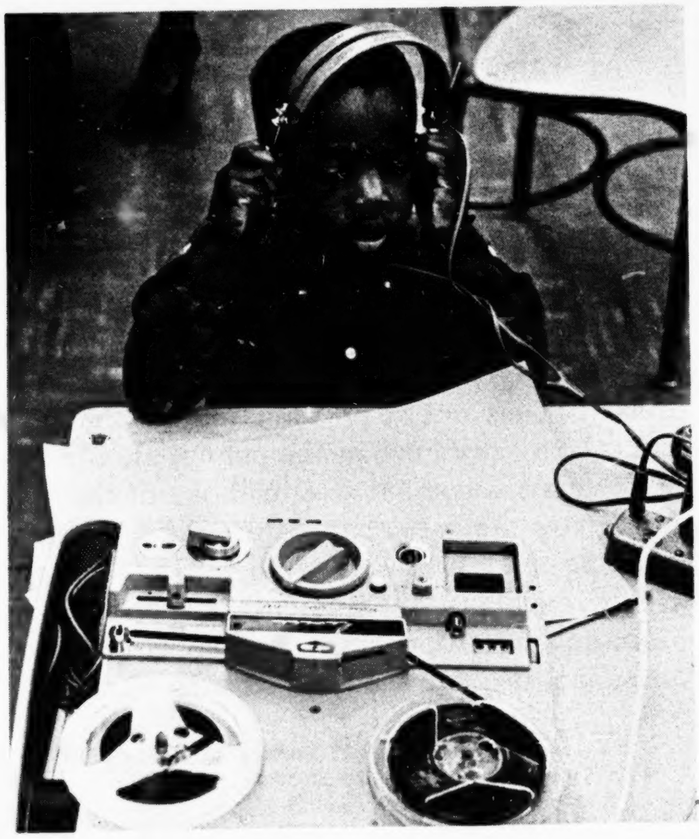
[6] Allen and Ryan, *op. cit.*, pp. 23-30.

gifted at small-group instruction will spend the major portion of his day in this activity. Also, he will be provided with free time to work with other teachers who are attempting to develop the skills involved in small-group instruction. Third, such a staffing arrangement will allow for leadership within the teaching staff. Excellent teachers will have a wider channel for influence, both with students and with colleagues. Fourth, the development of a hierarchy among classroom teachers undoubtedly will lead to teachers having a greater share in decision making. Although the demand for a greater voice in decision making is somewhat new, it seems regrettable that so often the demand is only in the areas of salary and benefits. The faculty of a school with a differentiated approach to its teaching staff will have a voice in policy making in all areas. Incidentally, at Temple City the teachers are structuring themselves into an academic senate similar to the university model.

We should bear in mind that the differentiated teaching staff is a new, untested idea. Although it appears promising, it will have to be applied in many different settings and studied carefully. We can, of course, be confident that it will not solve all our problems. However, it may solve many of them and lead toward greater professionalism in teaching.

The Preparation of Teachers

Another area to which we must give special attention if we are to get to our school of the future is the preparation of teachers. Few of us, whether involved in undergraduate or graduate programs, are satisfied with the current



results. Certainly, we have no dearth of critics to keep us humble. It is quite possible that one major source of our trouble is that we have patterned teacher education on the wrong model. Much of what is done in America to train teachers fits what I call the exposure-immersion model. I am speaking here of the professional component, not the academic component. In order to prepare students for the active role of teacher, we expose them to a series of education courses. The teacher-to-be is the passive recipient of information about children and teaching. After passing the paper-and-pencil examinations which are supposed to indicate that he can do all the things covered by the courses, we then immerse him in the active role of teacher. All of a sudden the student teacher or intern must stand before thirty or so children and translate all the passive preparation into skillful action.

Passive exposure and complete immersion! It is a minor miracle that so many can survive. One wonders how such a questionable preparation model ever got started. A possible explanation is that when teacher education was absorbed into colleges and universities some sixty or seventy years ago, it conformed to the prevailing patterns of these institutions. Except for student teaching, the preparation for teaching was treated like preparation in mathematics or English literature. Formal, and essentially passive, courses became the dominant mode. I am not suggesting that there is no place for formal course work in teacher education, rather that there is much more to be done. If we are truly to prepare our teachers-to-be for the complex, active role of teacher, there is a whole fabric of training experience that must be woven. These experiences should be a bridge between foundations courses and student teaching.

Some of these training experiences and activities are as follows:

1. *Paraprofessional Services.* For example, the college student takes over hall monitoring or other supervisory duties for teachers. The main idea is to put the college student in contact with youngsters, but in a new relationship, one in which he has adult responsibilities.
2. *Resource to Students.* In this role the beginner is assigned to a library or to a study area simply to be a resource for students. With a little training, most college students could be quite helpful to lower-school students, getting them started on library projects or helping them with certain study skills.
3. *Teacher Aide.* Here the beginner is assigned to a teacher or a team of teachers. He is put in a working relationship with

experienced teachers and is given the opportunity to observe and study the teacher role he is planning to assume. Such exposure to teachers and education-on-the-hoof should provide experiences that enrich his education courses back on the campus.

4. *Teacher Simulation Exercises.* Here I am thinking of the simulation exercises developed by Donald Cruickshank of the University of Tennessee. Trainees learn about a hypothetical class and school. Then they attempt to solve common teaching problems in role-playing situations. In a safe, simulated situation they learn many of the complexities of the teacher role, for instance, how to cope with irate parents.
5. *Clinical Exercises.* These exercises normally would take place in a school and can be quite varied in nature. For example, one such exercise might be having a trainee sit in on a class with the express purpose of identifying and closely observing an inattentive student. He records the student's behavior, makes some guesses about his achievement and social adjustment, and after class checks his perceptions with the teacher. Later these experiences are discussed back on the campus.
6. *Tutoring.* Here the beginner works with one student for several weeks. His assignment is to identify the student's learning problems, plan and execute a program of remediation, and finally, evaluate the success of the program. Not only does the future teacher have close and prolonged contact with one student, but he also is forced to do some hard thinking about the learning process.
7. *Microteaching.* Microteaching is a practice setting for teaching. The trainee teaches brief lessons to a few students and then gets feedback from several sources: the students, a supervisor, and video tapes of his performance. Usually in microteaching the trainee practices specific technical skills of teaching, such as controlling student participation or asking open-ended questions.

There is nothing new about this list of training activities and exercises. Although I know of no program that does not at least suggest to its students some of these activities, I know of no program that uses the full range. Finding time in the curriculum seems to be the big barrier. Each year the total undergraduate curriculum gets more crowded. Greater and greater demands on students are being made. At the present time it may be totally unrealistic to think that we can prepare a liberally educated individual and a highly skilled teacher in the normal four-year period. I am not necessarily advocating fifth-year programs. There are problems here, too. Rather, I am suggesting the adoption of five-year programs in which liberal arts study and professional education are integrated over the entire five years. This would give future teachers ample time to work in schools and go through the type of training activities mentioned above. At the end of his fifth year, the student would receive his baccalaureate degree, certification, and be well on his way toward an M.A. in education. Of course, the time could be shortened for those who choose to study during their summers. It seems clear, however, that the level of education and professional preparation demanded of the new teacher cannot be met in the traditional four-year sequence.

In-Service Training

Let us turn briefly to in-service training. Today the culture is changing with increasing rapidity. Knowledge is expanding and being redefined daily. However, teachers, whose role is the transmission of the culture and the dissemination of knowledge, have the meagerest opportunity to keep pace. We hear a great deal of talk about the teacher as continuous learner, but little provision is made for this slogan to become a reality. It is little wonder that commentators like the mythical J. Abner Peddiwell of *Saber-Tooth Curriculum*[7] fame and Marshall McLuhan,[8] the newly discovered prophet of the age, have faulted the schools for being irrelevant to the world in which children must live. If we are to have relevant schools, surely we must find new ways to keep teachers from falling behind the advances in both their fields and pedagogy. We not only need new ideas, but we will have to commit to this effort much more time, money, and energy. On this score, education can learn a great deal from the military and industry. The armed forces are continually retraining their personnel, not only through combat exercises, but also through a vast network of schools. The major industries, too, are allocating large portions of their annual budgets to education. IBM is said to be presently devoting 30 percent of the time of its employees, from executives to technicians, to training and retraining.

Although there are numerous approaches to the teacher obsolescence problem, there are two I will consider briefly. One is external to the ongoing school and the other is internal. The first approach is to develop a wide variety of retraining programs away from the school. Given the present need for highly qualified teachers, it does not seem unreasonable that every four or five years teachers return to the universities or special centers for a semester or perhaps a full year of advanced work. Also, the summer institute program should be expanded for many more teachers and for teachers of all subjects and all grade levels. These opportunities should be opened up particularly to the career teacher who has made a definite commitment to classroom teaching. Teachers should be able to attend without having to make any more financial sacrifices. We can learn from the recent experience in Japan that has helped to revolutionize the teaching of science there. To keep teachers abreast of the developments in the teaching of science, the Japanese have formed local science education centers that draw teachers out of the schools and retrain them for periods from as short as one wek to as long as a semester. Almost all of what is studied at these centers is immediately applicable when the teachers return to their classrooms.[9]

The second approach to the in-service problem is internal to the school. Time for study and retraining should be built into the *daily school schedule.* This does not mean simply more free time or in-service courses tacked on at the end of a draining day of teaching. Time should be scheduled during the school day for teachers to come together and learn. The most logical people to lead these in-service courses would be those who have just returned from external training programs. These in-service experiences would be especially valuable for inexperienced teachers and those who have returned to teaching after raising a family.

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[7] Benjamin, Harold. *The Saber-Tooth Curriculum.* New York: McGraw-Hill Book Co., 1939.

[8] McLuhan, Marshall, consultant. *Understanding Media.* A Report to the U. S. Office of Education by the National Association of Educational Broadcasters. Washington, D. C.: Office of Education, U. S. Department of Health, Education, and Welfare, 1960.

[9] Glass, Bentley. "The Japanese Science Education Centers." *Science* 154: 2-1228; October 14, 1966.

Although the full spectrum of teacher education needs much greater financial support, particular consideration should be given to the experienced teacher. Certainly, when we consider the tremendously high drop-out rate in the early years of teaching, it is easier to understand why such a small investment is made in preservice training. What is so difficult to comprehend is why we make such a paltry investment in the training of those who stay — the career teachers.

Change in Education

Most of what I have suggested with regard to where we are going and how we can get there hinges on our willingness to change. Also, it presupposes massive change in an endeavor that traditionally has been quite resistant to change. Frankly, I think that is all over now. Change is the new reality. Change may well be the *only* constant in our lives. Recently, I read a report of a letter from an 80-year-old woman: "Dear Sir," she wrote, "Why do we have to go to the moon? Why can't we stay on this earth and watch television the way the Good Lord intended?" Last November, McGeorge Bundy, president of the Ford Foundation, took a different tack and stated the issue quite clearly: "We are in a grave and deepening crisis in public education. The burden of proof is not on those who urge change. The burden of proof is on those who do not urge change."[10] It is our job as educators to inform and direct this change.

Although the magnitude of change being suggested calls for financial expenditures the like of which we in education have never seen, we are gathering support. People in government, people in industry, and people on the street are realizing a simple fact: *We cannot afford not to change the schools.* The state, whose fundamental purpose is national survival, has realized that the human mind is our basic and most valuable national resource. It looks to the schools to develop the genius and supporting talent that will solve the frightening problems that confront us. Many Washington watchers are expecting the government to pump huge sums into education once we extricate ourselves from Southeast Asia.

Industry, too, has a vested interest in the schools. It looks to the schools to provide it with the scientists, managers, and technicians to support and expand the technological society. More recently, industry has found in the schools a vast, relatively untapped market for its goods. The mergers of the "software" and "hardware" industries like IBM, SRA, GE, and Time, Inc., are a powerful indication that American industry is in the schools in a big way. For many members of the business community, the words of Calvin Coolidge in the twenties, "The business of America is business," have been updated to, "The business of America is education."

The third force for change in the schools is what I have called the emerging will of the people. People are becoming increasingly aware of our potential for developing the good life. Not simply the rich life, but a qualitative improvement in the very character of life. We are slowly realizing that the new frontier is not outer space — our interest here is already wanting — but the human potential.

[10] Buder, Leonard. "Debate on School Reform." *New York Times*, November 19, 1967. p. E11.

If the civil rights struggle has taught us anything, it is that phrases like "quality education," "equal opportunity," and "the human potential" are not simply to be in the future the province of the few. The American school, which classically has been used for upward mobility, is now being viewed as instrumental in the attainment of a new good life that may well be within our grasp.

These three pressures for change in the schools — the state, business, and the emerging will of the people — are not equal. It would seem that right now we are moving faster toward a "meritocracy" that lavishly rewards those who advance the power of the state or business. However, there is something dangerous about educating people. They become dissatisfied with the merely adequate. They become critical of the imperfect. They develop new appetites. They seek new alternatives. My suspicion is that the more we educate, the more people will demand the truly humanistic education in a truly human life.

LET'S EXPLORE
THE OCEAN
Philadelphia
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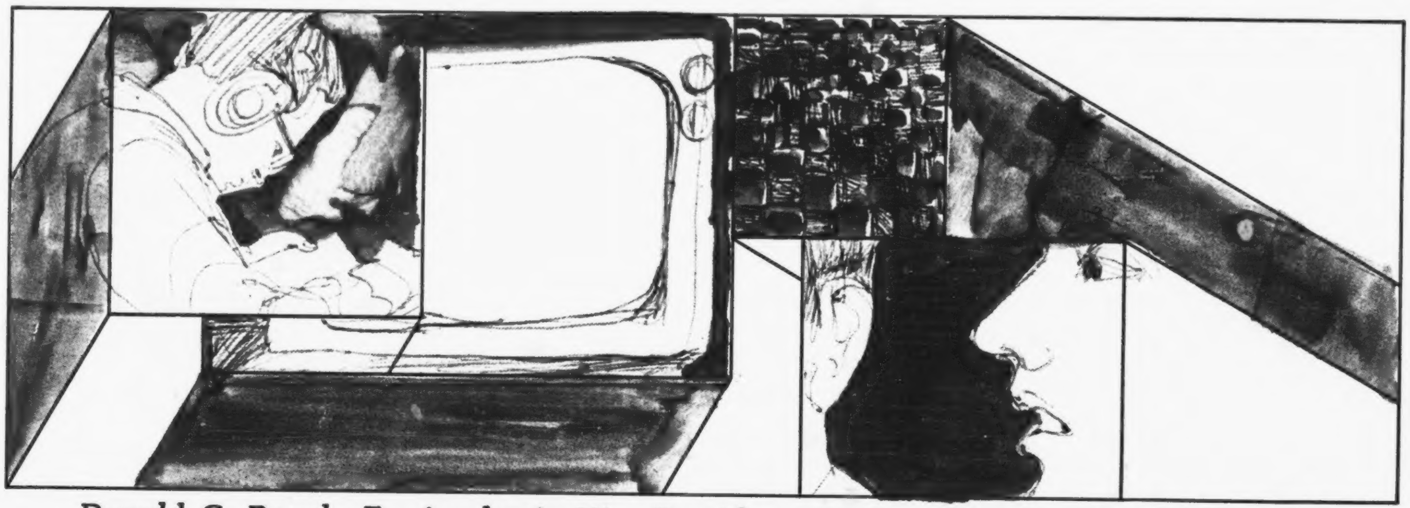
Group I + II

EDUCATING TEACHERS THROUGH DIFFERENTIATED ROLES



Donald C. Roush ■ *Academic Vice-President* ■ *New Mexico State University*

The current uniformity of structure in public school and university education is undergoing the most penetrating scrutiny. To an extent, the concept of "The Teacher and His Staff" is a protest against institutional uniformity. But more than that, "The Teacher and His Staff" is proposed as a plan of action to improve instruction and to utilize more fully the talents of teachers. The design calls for the assignment of professionals and paraprofessionals to a teaching team where each member makes his unique contribution to the education of students.

The idea that these teams might extend the scope of their work to include the education of prospective and in-service teachers could greatly improve the quality of teacher education and collaborative practices among schools and universities. Moreover, the direct participation of teacher education students in the differentiated roles assigned to team members would challenge the uniformity of structure in the school and in the university.

Prior to a review of some materials prepared during the Year of the Non-Conference, it had not occurred to me that the assumptions supporting the "the team and the teacher" organization were relevant to all levels of education. The following rationale extracted from a paper by Edelfelt[1] serves to describe the concept:

1. The job of the teacher has become unmanageable.
2. Teachers cannot function effectively in isolated and insulated assignments.
3. Teachers desire and need the stimulation of colleagues.
4. Modern developments, an affluent society, and the knowledge explosion mandate curricular change which can be achieved effectively by a teacher and his staff.

[1] Edelfelt, Roy A. "The Teacher and His Staff." *New York State Education* 5: 16-19; October 1967.

5. Teachers, like all human beings, possess individual differences which can best be utilized through different assignments.
6. Pupils are different, too, and these differences can be met more effectively by a teacher and his staff.
7. Differentiated assignments cause teaching and learning to be more exciting and effective.
8. Teachers need to look forward to promotions in teaching.

The relationship of this rationale to the education of teachers is discussed later in this paper.

The exciting practices in the TEPS demonstration centers are also a revelation and ample evidence that some teachers are ready to break with traditional patterns. Even at the college level there is some evidence of change. Indeed, in limited ways college students are currently being prepared for teaching through differentiated roles. Students may choose a program where their role changes from school aide to teacher aide to assistant teacher to co-teacher during each of the four years of preparation; or they can spend three years in traditional curricula and change to the role of intern during their fourth and fifth years; or they can earn a traditional degree and accept a teacher-intern role for two years. These attempts to break with tradition may be imperfect in some ways, but too few of them exist. A large portion of a teacher's education is carried on in traditional situations, i.e., one role, a student, a student, a student, a student, and suddenly, somehow, a teacher. Even a cursory review of the more than two hundred demonstration center programs and practices suggests a number of implications for change in the traditional ap-

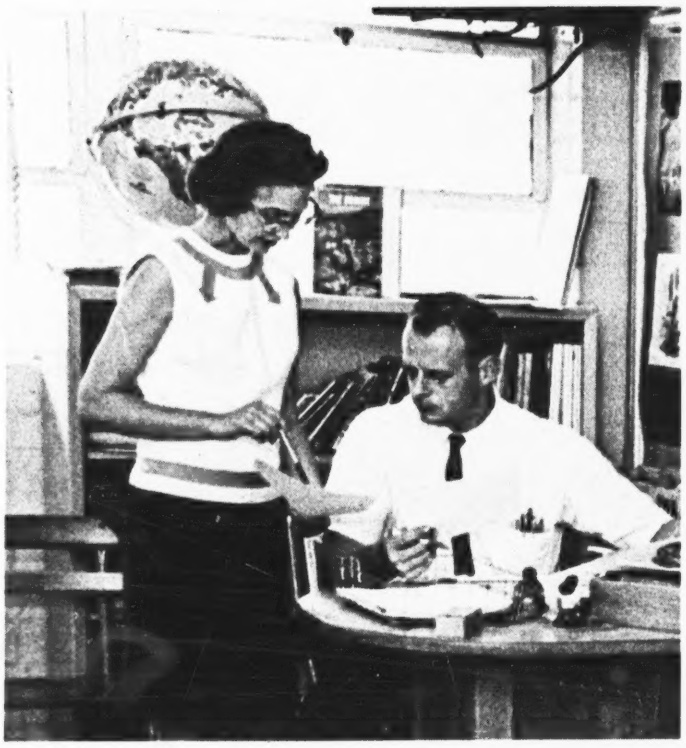
Donald C. Roush

proach.[2] If teachers are going to work as members of a staff, surely they need to be educated in different ways.

It would make sense to provide for experiences with the teacher and his staff in preservice and in-service programs. Moreover, if differentiated roles improve elementary and secondary education, participation in such roles should improve the education of persons assigned to them.

Some may think it impossible to apply these ideas to university or even to in-service education. The plan I will describe is a modest attempt to educate students and teachers through differentiated roles. One runs a risk of being misunderstood when he talks about a program, but the intent here is not to prescribe but to describe.

In the Cooperative Program in Teacher Education at New Mexico State University[3] more than one hundred young men and women in the first, second, and third years of college currently are assigned to differentiated work experiences as an integral part of their education. We simply "tapped into" Title I-C of the Higher Education Act work-study program, identified able youngsters from low-income families who wanted to teach, and launched the Cooperative Program. These co-op students alternate semesters of study with semesters of laboratory experiences in the public schools. The laboratory semesters are referred to as work phases since the students are paid progressively at GS-1, -2, -3, and -4 levels for their 35 hours per week rendered to teachers through differentiated roles while learning to become teachers. One-half of each group of students are in the public schools each semester while the other half are in the carefully planned study phase. Their assignments are reversed at the semester change.



All first-year students are assigned to elementary schools as school aides and all second-year students to junior high schools as teacher aides. Third- and fourth-year students are assigned to elementary, junior, or senior high schools, depending upon their career interest. They serve as assistant teachers the third year and as co-teachers the fourth year.

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[2] National Education Association, National Commission on Teacher Education and Professional Standards. *The Teacher and His Staff: Selected Demonstration Centers.* St. Paul, Minn.: 3M Company, 1967. 143 pp. Copyright 1967 by the National Education Association.

[3] See the following for additional information: Saunders, Jack O. L., and Roush, Donald C. "Design and Rationale for an Experienced Beginner in Teaching." *Journal of Teacher Education* 17: 192-97, Summer 1966; "The Experienced Beginner." *Remaking the World of the Career Teacher.* Report of the 1965-66 Regional TEPS Conferences. Washington, D. C.: National Commission on Teacher Education and Professional Standards, National Education Association, 1966, pp. 170-76; and "Tapping Human Resources for Teaching Through Cooperative Education." *Journal of Cooperative Education* 4: 1-5, November 1967.

An integrated plan of professional education accompanies each laboratory experience. Students report to the campus once each week where they share and receive meaningful feedback about their experiences. Teachers and professors attend the seminars where they give and receive meaningful information about the "teaching team."

Emerging Perceptions of Integrating Study with Differentiated Experiences

Emerging from three years of experience with this new program are a number of significant perceptions about the teacher and his staff and differentiated roles as they relate to the education of teachers.

- The teacher education program is no longer "locked in." The new professional education curriculum developing from the education course seminars directly related to each differentiated role is more vertical than horizontal. Students need to know something about the entire content of teacher education during their first assignment and progressively more in the second and third years.
- Teacher education is meaningful to students and to the teacher "in charge of the staff." When experience is directly related to an education course, and vice versa, most students, teachers, and professors are highly motivated.
- Some teachers are unable to utilize students in differentiated roles effectively, while others could probably not be effective or even retained in teaching without the opportunity for meaningful feedback from students and colleagues.
- Teacher education is competing for a larger proportion of the top talent in the university. Students admitted to the program are able and are being retained. The retention rate is 65 percent greater than in the regular program. On the other hand, some students found that teaching was not what they wanted, but they were able to find out as freshmen.
- Many co-op students enter the program with negative attitudes toward teaching and teacher education even though they want to become teachers. However, the change of attitude from negative to positive after one or two weeks of experience in a differentiated role is amazing.
- The co-op students seem to be developing a better self-concept and more self-assurance as they succeed in different role assignments. They should "land running" in the first year of teaching.
- Work experiences in differentiated roles are equipping co-ops for leadership in the education of other students and teachers in the future. Remember, co-ops will have participated in four different roles prior to becoming first-year teachers.
- Teachers currently receiving in-service education as they work with co-op students are learning how to work with a staff and could also be effective in continuing teacher education programs.
- As professors, graduate students, local school principals, local teachers, and co-ops work as members of a team, each group has much to learn from the others.
- The co-op program serves as an effective testing ground for Edelfelt's rationale.

Testing the "Edelfelt Rationale"

Though the primary reason for the Cooperative Program in Teacher Education was to find a way to compete for the talent, we have learned volumes about how teachers and college students can work together in differentiated roles. Edelfelt's rationale is applicable to teacher education, as follows:

1. The job of the teacher is unmanageable.

   The job of the teacher is more manageable for those teachers who can and need to relate to others about the education of children.

2.-3. Teachers are ineffective in isolated and insulated assignments and need the stimulation of colleagues.

   Some teachers seem to prefer the isolation of their classrooms while others need a staff and the continuous stimulation of colleagues.

4. Modern developments mandate curricular change which can be met effectively by the teacher and his staff.

   The teacher and the co-op use modern technological equipment, but the impact of an affluent society and the knowledge explosion has not been observable.

5. Individual differences of teachers can be more effectively utilized through differentiated assignments.

   Co-ops are utilized by some teachers more effectively than by others. Some co-ops are more effective with some teachers than with others.

6. Individual differences of pupils can be met more effectively by a teacher and his staff.

   Pupils receive more individual attention where co-ops are assigned.

7. Differentiated assignments result in more effective motivation.

   Pupil and teacher excitement has been more evident where co-ops are assigned.

8. Teachers need to look forward to promotions in teaching.

   Co-ops feel useful performing clerical and other nonteaching tasks but feel "used" when the task assignment becomes too routine.

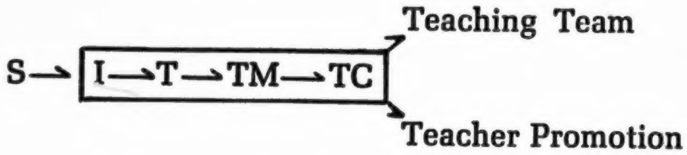
Emerging Perspectives of Educating Teachers Through Differentiated Roles

Experiences with differentiated roles, the Las Cruces-New Mexico State University demonstration center, and the examination of literature relative to the concept of "The Teacher and His Staff" have greatly influenced our thinking about educating teachers. The following emerging perspectives may cause us to make major changes in the design of programs:

- The teaching profession should drop the use of the terms *preservice* and *in-service* and give attention to integrated educational programs which will help teachers to be more effective each day of their career, from the freshman year of college to retirement. The "pieces" of a teacher's education often serve to confuse and frustrate the teacher instead of increasing his effectiveness.
- It may be that universities should give priorities to local schools requesting continuing teacher education services that are also willing to contribute to the education of prospective teachers.
- Whether teachers remain in teaching until retirement might well depend on the ability of the school to utilize their talents and on the continuity of their educational programs.
- Plans of teacher promotion should be organized around teacher growth poten-

tials. *Team leaders, professionals,* and *paraprofessionals* are terms which may contribute more to separation than to integration of educational programs. An organization of Student (S), Intern (I), Teacher (T), Teacher Master (TM), and Teacher Consultant (TC) is a simple but perhaps workable model for teacher growth and promotion.

Teacher Growth and Promotion Model



- Students preparing for teaching should understudy each position on the teaching team and act as catalysts for the different agencies and professionals contributing to the education of the teaching team.
- Professionals (I⟶T⟶TM ⟶ and TC) should participate in educational programs designed for their respective positions, and they, too, could act as catalysts for the different agencies and professionals contributing to the teaching-learning process.
- The necessity of educating personnel for and in each teaching position could become the motivating force in the development of educational programs for each team position. It would also be necessary to develop an integrated plan for educating teachers in the lifelong pursuit of their careers.

- As society and knowledge change, professionals need to know more and more of what students are taught. Students need to learn about the real world of the school and teachers need to learn what the real world of the school ought to be. Plans of integrated teacher education could serve both groups and both purposes.
- The teacher and his staff could become a formidable status quo barrier to new personnel unless they are engaged in continuous educational programs.
- The process of educating teachers need not have direct relationship to certification, licensing, or degrees. Too often these requirements are unrelated to what professionals do and need to know in the classroom.

Assessing the Climate for Change

As I formulated the emerging perceptions and perspectives, I had the feeling that the implications for change were too overwhelming to touch the universities. It seemed that the college of education must act as the change agent or anchor man as the profession faced the challenge of change. My feelings were aptly expressed by Thoreau when he wrote that the corrective processes may "take too much time, and a man's life will be gone."

As one assesses the climate for change in teacher education, there are evident cues for encouragement as well as discouragement. A discouraging aspect is the apparent lack of concern of the teaching profession for teacher education.

If teacher educators in the university are envisioned as playing a pivotal part in the change process, the teaching profession must move rapidly toward unification (more than unified dues). The teacher educator faces a number of serious problems which often prevent him from being concerned or even interested in change. His heritage includes years of program deprivation, course duplication, a disinterested profession, and in some cases, a hostile campus atmosphere. It probably would be more accurate to discuss the lonesome world of the teacher educator because that has been his real world. He has been the campus fall guy or outcast, the public whipping boy, and the target of unethical statements of the teaching profession. He has observed the profession's willingness to have the "home of the profession" housed in the most primitive campus facility. In numerous cases the college has used teacher education for enrollment when it had little interest in and practically no commitment to teacher education. Later, after the college was "on its way," the teacher education program and its students were purged to support the curricula to which the college was *really* committed. We have been observers of this spectacle long enough. The time is overdue for the profession to set and enforce standards governing the professional preparation of teachers.

Fortunately, there are a number of encouraging signs in the change climate. Teacher educators have an unparalleled opportunity to capture the imagination of a changing profession. Their first responsibility is to ensure opportunities for meaningful education to the students they teach if their university preparation has not been meaningful. Teacher education products come from the same source to which they return. We can and must break the cycle.

The heritage of future educators can be a richer one. The NCTEPS has set the example. The 1963 National TEPS Conference in Columbus, Ohio, highlighted changes in teacher education. The 1965 National TEPS Conference in New York City focused on the beginning teacher. The Year of the Non-Conference has brought to the forefront hundreds of exciting innovations in public schools and, in some cases, in teacher education.

Other encouraging signs of the climate for change are presented through a series of questions. Is the quality of public education directly related to the quality of those who enter teaching and the quality of their preparation? Can teacher education achieve the desirable quality of preparation without the support and interest of public school personnel? Can the profession afford to be unconcerned about its "professional campus home"? Can the teaching profession avoid stating clearly defined standards for the education of teachers? And in the larger sense, will the profession continue to exist as a profession unless it insists upon the right to exercise its professional prerogatives? Can teachers and professors ignore the current search of students for a meaningful education? If "colleges and universities, mankind as a whole, are growing knowledge-rich and understanding-poor,"[4] will it not be necessary for teachers and professors to design learning models which attempt to integrate knowledge and understandings? Have the patterns of the past been so outstandingly successful that we must cling to them?

The answers to these questions, coupled with the processes in which the profession engages to seek the answers, will greatly affect the climate for change. Perhaps a focus on the major ideas of "The Teacher and His Staff" will diminish the magnitude of the challenge to change and serve as a way to capitalize on the "team movement" already under way in many public schools and a few colleges. At the risk of overstating the obvious, major changes seem to take place when people become caught up in an idea related to their needs.

In this paper, the major ideas related to the needs of the teaching profession seem to be:

1. The learner, whether student or teacher, receives a more meaningful education as he participates in differentiated roles as a member of a teaching team.
2. Differentiated assignments make it possible for a greater number of people to make more significant contributions to pupil learning.
3. The integration of the contributions of groups at various "levels" of the profession results in more effective teaching outcomes for the effort input and more meaningful feedback among these groups.

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[4] Wendell, Philip R. "Teaching and Learning: The Basic Function." *Whose Goals for American Higher Education.* Washington, D. C.: American Council on Education, October 1967. p. 22.

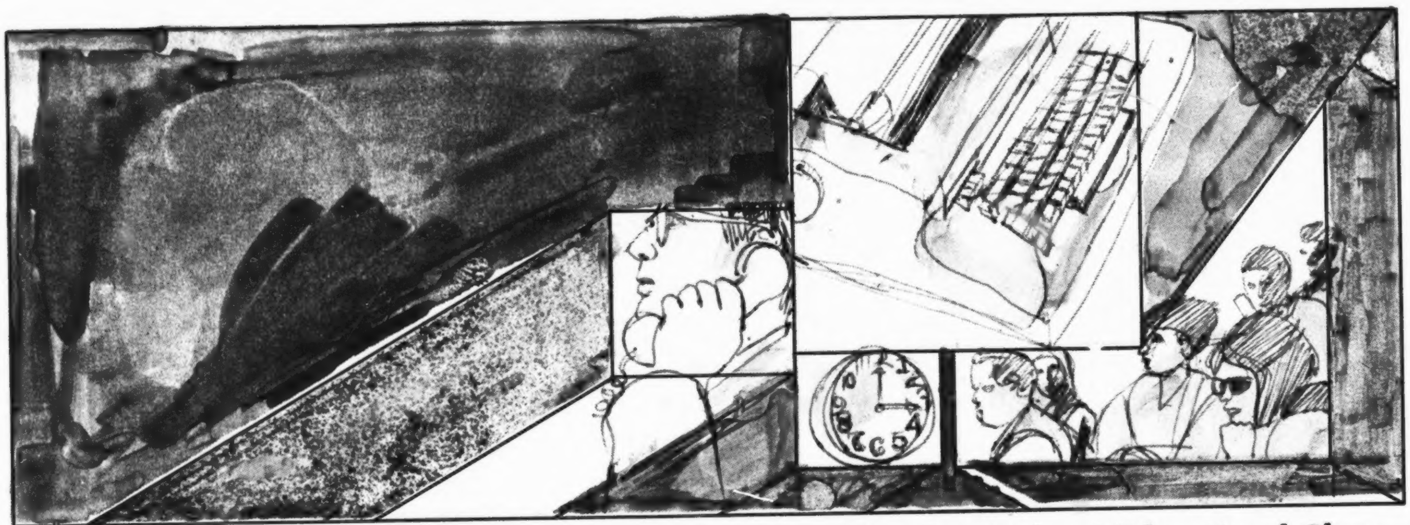
4. The learner, whether student or teacher, acts as a catalyst for the integration of various professional group contributions.
5. The education of each teacher is a lifelong venture requiring lifelong architectural plans.
6. The opportunity for meaningful role assignments and meaningful understanding of assignments attracts and retains a greater number of able teachers.
7. A number of superior teachers desire opportunities for promotion as teachers.

These ideas are the challenge of change, not co-op programs, internships, the concept of "The Teacher and His Staff," or any other particular design.

Whether these ideas are put into practice in the context of "The Teacher and His Staff" as described in this paper is beside the point. The point is that teachers accept the challenge and excitement of the continuous search for more effective ways to educate and for a climate of work more conducive to their effectiveness.

These ideas and challenges are commanding priorities. When students find a more meaningful education, they will find a meaningful profession of teaching. Students will be both knowledge- and understanding-rich when they are taught that way. Educating teachers through differentiated roles is one way.

MAJOR IMPEDIMENTS TO EDUCATIONAL CHANGE AND IMPROVEMENT



John J. Horvat ■ *Executive Officer, National Institute for the Study of Educational Change* ■ *Indiana University*

The *Prospectus*[1] for the Year of the Non-Conference uses the words *change* and *improvement* fourteen times. The tenor of the entire program has been highly oriented toward educational change and improvement.

The Year of the Non-Conference is described as "a massive, nationwide effort to improve the quality of education by making the job of the teacher more manageable."[2] Its purpose: to emphasize "the trying and testing of (rather than just talk about) new ways to change the job of the teacher and conditions in schools so as to improve instruction, enhance the status of teachers, and attract and hold an increased number of talented staff members. . . . It is an experiment, an innovation, a gamble, but it may be just what is needed to produce change and accomplish new ways of thinking about the teacher's job and conditions in the schools. And the combined, multilevel attack may attract the kind of national attention which will result in a faster than customary change of pace in education."[3]

At the culmination of the Non-Conference, according to the *Prospectus*, "a huge amount of experience and evidence should be available to map additional efforts in the TEPS movement toward better teaching and better schools."[4]

In taking stock of the results and achievements of the 18-month Non-Conference, we know that hundreds of live case studies were to have demonstrated effective ways to change the job of the teacher and conditions in the schools. I do not doubt that from them many people have gained experience and differing forms of evidence to help in the movement toward better teaching and better schools.

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[1] National Education Association, National Commission on Teacher Education and Professional Standards. *Prospectus: The Year of the Non-Conference 1966-67 . . . Emphasis: The Teacher and His Staff.* Washington, D. C.: the Association, 1966. 10 pp.

[2] *Ibid.*, Preface.

[3] *Ibid.*, pp. 6-7.

[4] *Ibid.*, p. 8.

But this outcome only begs a more important question: What difference has it all made? What improvements in American education exist today that are a direct result of the Non-Conference? Has the quality of education been improved significantly in a significant number of schools? Is the job of the teacher in fact more manageable today than it was in 1966? Are auxiliary personnel and specialists being used more effectively than they were? Is the environment for staff development a better one? Have new ways to utilize staff been discovered *and implemented* in real school systems? In short, has the Year of the Non-Conference been a successful innovation? Has the gamble paid off?

John J. Horvat

It may be too early to suggest meaningful answers to these questions. My guess is that the "massive, nationwide effort to improve the quality of American education by making the job of the teacher more manageable" has been at best only a mild success. And this, if true, is not a surprising outcome from such an effort. Most current efforts to change and improve education in the United States are *at best* only mildly successful. The federal government, for example, has pumped unprecedented amounts of money into programs and projects to change and improve education, as have the major philanthropic foundations. But even the most wildly optimistic observer of the results of these efforts must work hard to rate them as more than mild improvements.

Given the state of education today and the extent of our present knowledge and ability to control the establishment, I think it is safe to say that any efforts aimed at massive change and improvement are fortunate to be even mild successes. Of course, there are reasons why the picture is so bleak.

One reason is the magnitude of the educational establishment and the great number of its problems. We are talking about changing and improving 23,500 school districts, over 125,000 schools and colleges, over 118,000 administrative personnel, 50-75,000 teacher educators, and more than 2,100,000 elementary and secondary school teachers.[5] Within this immense educational establishment turbulence and problems abound. The problems are in large part the result of four "explosions" which are occurring simultaneously in education — the so-called explosions of population, of knowledge and technology, of militancy, and of expectations, i.e., schools are expected to be more things to more people than ever before. By any objective assessment, even the largest change-improvement programs are miniscule when compared with the massiveness of the problems confronting us.

A second major reason why educational change and improvement are so difficult to achieve on a grand scale is that change, or changing, is hard work which typically offers very little short-range payoff or gratification. In fact, there are those who frankly believe that a man has to be a bit irrational to become an active advocate or agent of change.

Change and improvement programs require much more work for everyone involved than does maintaining the status quo, at least in the short run. Change in itself is not an overwhelming problem, but when changing education at the operational level is coupled with the limited rewards that usually are to be expected if one does change, the problem becomes extremely difficult. Consider the typical teacher in an average to good school system, for example. He is bombarded almost daily with ideas, suggestions, admonitions to change this, that, or the other. He is probably already involved to some degree with half a dozen "official" school district change programs. But what rewards can *he* expect as a result of all this changing? If we are honest, we have to recognize that about all the teacher sees in store as a result of changing is more work to gain approximately the same old payoff — and I mean payoff in terms of salary, prestige, work load, and most important, student achievement. Far too many of the programs, ideas, and packages for change and improvement that are suggested or huckstered today do not provide incentives to change on either personal or professional grounds. They do not ease or have not been demonstrated to ease the load of the teacher or improve the satisfactions of teaching through the increased learning of children.

Now, the two major problems just mentioned are clearly not susceptible to easy resolution, but I think they can be resolved if education wants them resolved. We *can* get the funds and the massive programs together to mount attacks on massive problems. We *can* make change and changing a little easier to take by building in some rewards for those who must implement the changes and by making certain that the innovations that are promoted have at least a minimum level of professional merit.

The third major impediment, and the most critical one, to massive change and improvement in education will, I believe, be much more difficult to overcome. It is simply our lack of know-how in the processes of planned change. We are very successful in devising new ideas, programs, packages, and gimmicks which are supposed to lead to change and improvement — from team teaching and differentiated staffing to any number of new curricula — but we have developed hardly any methods for getting the new ideas implemented in ongoing educational systems. We do well in producing the "things" or the "whats" of change and improvement, but we do miserably in producing the "hows" or the "how-to-do-its."

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[5] Figures based on data given in "Magnitude of the American Educational Establishment (1967-68)." *Saturday Review* 50: 67; October 21, 1967.

At first blush this may not seem to be such a tremendous problem, but if you consider its nature for a bit, I think you will agree that it is a major stumbling block. A simple but basic example is the school administrator who is serious about improving education in his district. He has no real difficulty in defining some area of the school program or operation which needs improvement. He usually has no difficulty in identifying likely programs, processes, or packages which might serve to bring improvement about. He does, however, have a great deal of trouble in moving the program he selects into operation in the district. This pattern at the school district level can be multiplied many times. The same sort of thing happens at the building level and at the classroom level. It happens as well at the university, the state department of education, the regional laboratory, the Title I and III project, the school study council, and the state or national professional association levels.

To an alarming degree education suffers from three fundamental deficiencies in the area of planned change and improvement:

1. *We lack understanding of the educational change process* When a school or an agency staff sets out to attack a problem which has been identified, they quickly find that they know almost nothing about the processes by which change occurs. Models of the change process and strategies for bringing about educational changes are desperately needed by the planners and engineers of educational improvement programs. Yet such models and strategies are virtually nonexistent.[6]
2. *We lack personnel competent to exercise leadership in designing and mounting change programs or to implement these programs.* We also lack curricula or training programs to prepare educators for these roles.[7]
3. *We lack the tools and strategies through which educational improvements may be effected.* Educational change-improvement is a developmental-engineering process. It is a process which takes research, theory, and many other inputs (such as practical experience and

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[6] Adapted from: Guba, Egon G., and Horvat, John. "A Proposal for the National Institute for the Study of Educational Change 1967-1972." (Unpublished paper.) Bloomington, Ind.: the Institute, May 1967. p 3. (Multilithed)

[7] *Ibid.*, pp. 3-4.

understanding of educational problems) and from these develops methods and problem solutions which are useful and usable at the level of practice. Evidence from industrial R&D programs indicates that the development of an idea into practical, usable form requires from five to eleven times as much money as is required to obtain the idea in the first place. But in education, very few dollars have been invested in programs, mechanisms, or agencies for the accomplishment of these critical developmental tasks. Moreover, critical elements of these developmental or "engineering" processes are not well understood. Current efforts to engage in them are frequently misguided because their nature is misinterpreted. So, for example, the ways in which solutions to problems can be packaged into forms useful to practitioners are not clear. Current models and methods of dissemination or evaluation, far from being useful, actually mislead the practitioner because they are based on assumptions inappropriate to the real world of education. It is clear that tools and strategies appropriate to each developmental or engineering element of the improvement process are desperately needed.[8]

I will discuss the nature of these three deficiencies and make some suggestions, however limited, about what might be done immediately to alleviate them to some degree.

The Change Process

I have claimed that we lack understanding of the educational change process and that we desperately need models and strategies for bringing about change. There are a few change models in existence, but they are not well explicated or very useful to practitioners at any level. They are best described as reconstructed logics, that is, they describe the logical steps that seem to make up the process of planned educational change but they do not indicate the techniques needed to move toward change. They also have one very serious flaw. Because they are reconstructed logics, they assume that only rational-scientific forces are involved in the change process. But we all know that there are other forces that are important, including political, sociological, and economic factors and relationships. Our present models do not deal with these factors at all, and until they do, they cannot be very useful to the practitioner or operational-level change agent. Unfortunately, these reconstructed logics are all we have now and, as such, are better than nothing.

But why all the concern with models of planned educational change? Changes take place whether we plan them or not. This is true, and it is one of the reasons why we need models and strategies. Change does occur willy-nilly, and it takes people and organizations with it willy-nilly as well. Thus, we need models and strategies so that we can work to control, at least in part, the changes that will take place and that will affect us. We need to understand change so that we can:

1. Reduce the "natural" time required to implement really good and desperately needed changes in our systems and make their introduction more efficient and economical.
2. Have some control over the changes and change forces that will occur whether we will it nor not. For example, if some of the changes precipitated by sputnik in

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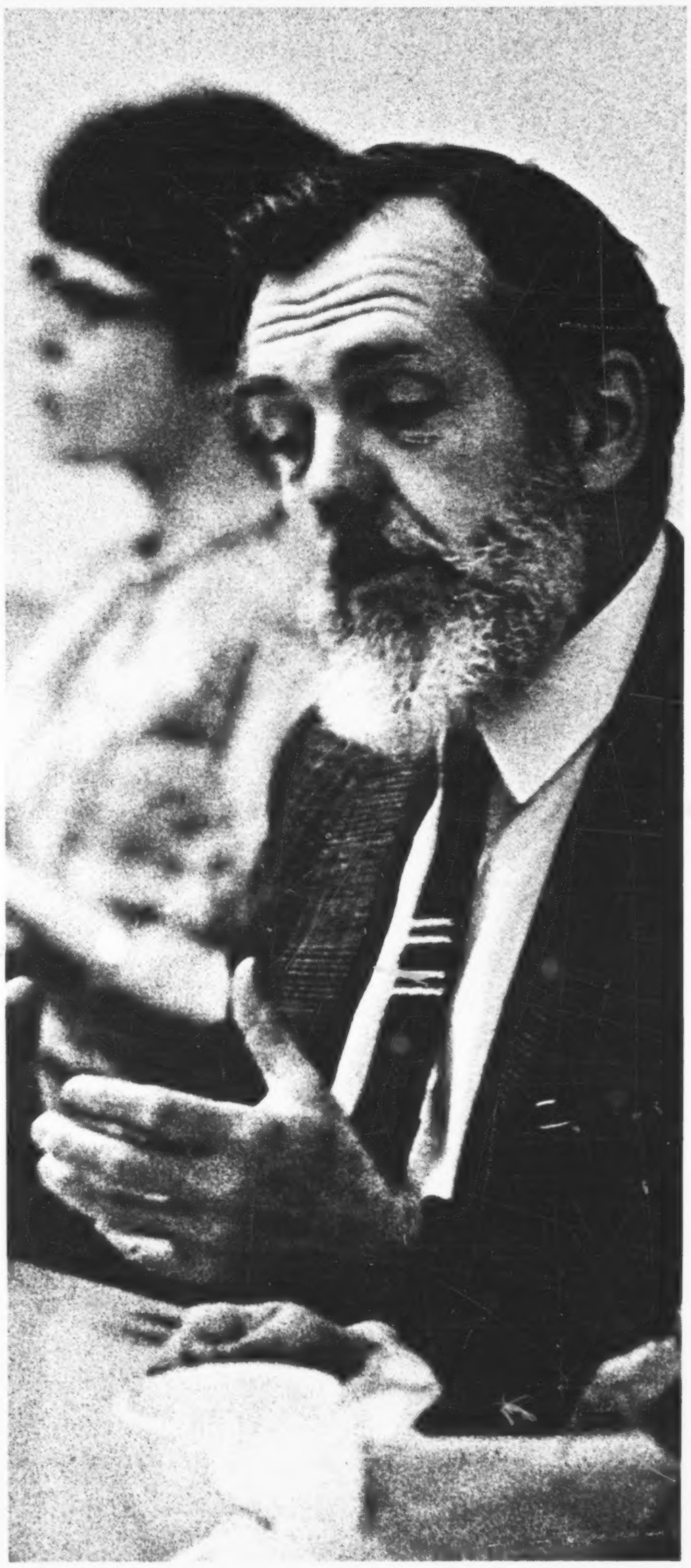
[8] *Ibid.*, pp. 4-5.

1957 had been under the control of educationists, perhaps we would not have had the headlong rush to upgrade science, mathematics, and language programs to the nearly total neglect of all other areas of the curriculum. Or, if teachers and administrators understood the process of change better, perhaps some of the useless ideas that are passed off as good innovation in the name of change and improvement could be rejected before time, energy, and funds are expended on them.

There are, of course, other reasons why models and understandings of the change process are important and useful, but these two are of major importance to most practicing educators.

I would like to make a point here on the process of change at the college and university level. Much of what TEPS and the Non-Conference hope to accomplish (as well as that which most other change and improvement efforts wish to accomplish) cannot be done without the help of the colleges and universities, but they seem to be the most difficult educational agencies to change. I talked with several of my university colleagues to get their estimates of the extent of the lag of teacher education programs in keeping up with what is going on in the schools. Their estimates ranged from a minimum lag of twenty years to a maximum of forty. Colleges of education apparently do not have or use any models for planned change. To quote two of my colleagues:

> *The posture of the higher education community today in regard to systematic, planned change is neither logical, sound, nor tolerable. As elementary and secondary schools become more vulnerable and re-*



> *sponsive to change, their university counterparts become more rigid and less adaptable (except, of course, when the change concerns the elementary and secondary schools). While public education goes about the business of constructing change mechanisms to facilitate the process of change, the university stands pat with its historic vehicles — or lack of them.*[9]

They go on to say that in terms of actual change, "colleges and universities are fiddling with trivia, e.g., reorganizing the courses of instruction bulletin, switching to a trimester system, changing class hours, etc, and wasting their human resources on committees *ad nauseam* while their course content, teaching methods, student advisement, and the like remain rigid and unyielding."[10]

If organized efforts to make the job of the teacher more manageable and to improve the quality and conditions of education are to be successful, the colleges and universities are going to have to be responsive to present-day school problems and teacher-training needs. To be responsive, they are going to have to develop new models and strategies for change, and they are going to have to begin dealing with the conditions that exist in the schools of 1968 rather than with those that existed in the schools of 1948.

I do not have a planned-change strategy package in hand to give to the colleges and universities (and in any event, such a package will have to be developed primarily from within), but I do have a suggestion which might make an immediate difference in terms of the trained-teacher products. I think that one of the major requirements for advancement in rank or salary for professors of education courses, both substance and methods, should be that they spend at least a month every two or three years as a classroom teacher. They could serve as substitute teachers or summer school teachers, for example. If the colleges of education had such a requirement, it would help to ensure that professors would be aware of what schools are like today, and it would reduce the number of courses based on professorial perceptions of schools of a decade or more in the past. A simple change like this might well improve and make more relevant the education of our teachers.

Now, what can practitioners at the school district (or other agency) level do in terms of developing and using models and strategies for change? Practitioners cannot use existing models because they will not really be helpful. It probably would be unprofitable for them to attempt to develop full-blown conceptual models of the change process. However, they can learn about the change process by paying careful attention to the change efforts that are now and will be occurring in their school systems, and they can develop their own tentative operational change models without waiting for fully developed conceptual models to be produced by other agencies.

It is a sad fact that very few practitioners, at any level, learn from past successes and failures in the area of change, and the little that is learned is usually not recorded and shared with others who are interested in implementing change. It is essential that practitioners begin making careful observations of the processes and results of their change efforts. For them to do so, however, will require that someone in the system be given the responsibility and the resources needed to gather the necessary information and to interpret and record it in a form that will be useful to others. The educators who are involved in the change efforts could begin making careful observations of what goes on. They could attempt to find answers to questions such as: What factors or groups appear to be responsible for the failure, blockage, or reduction of success of a particular change effort? What dissemination and demonstration processes seem to be most successful in gaining teacher acceptance of an innovation? What kinds of change seem to require active staff participation in planning in order to be successful and what kinds do not? Such information is essential. Without it, even if excellent conceptual models of the change process were available, practitioners could not adapt and apply these models to their particular situations.

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[9] Clark, David L., and Guba, Egon G. "Effecting Change in Institutions of Higher Education." Unpublished paper for the International Intervisitation Program, University Council for Educational Administration, October 1966. p. 21. (Mimeographed)

[10] *Ibid.*, p. 32.

Change Personnel

Turning to the problem of training, I have claimed that we lack personnel competent to exercise leadership in designing and mounting change programs or to implement the programs. We also lack the mechanisms to train and produce them; the only way one can gain expertise of any kind in the process of change is on the job. There are virtually no programs at the university or any other level to prepare personnel to fill roles as educational change agents or engineers.

Part of the reason for this lack of attention to the need for personnel who can assume roles as change agents is our failure to recognize the need until recently. Only within the past few years have we recognized that we need developers, diffusion and demonstration experts, packagers, evaluators, and other educational engineering roles. Thus, a time lag in the development of training programs is to be expected.

But there is more than a time lag problem involved here. Preliminary findings from two U. S. Office of Education-sponsored studies which are being conducted at Indiana University[11] indicate that very few programs exist anyplace in the country for the training of educational engineering personnel despite the fact that such roles have been in demand in very large numbers by the nation's educational programs and projects of the past three to five years.

I think the reasons behind this lack of attention by the educational establishment to such an obvious need can be attributed to our

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[11] Guba, Egon G. *Training Materials for Research, Development, and Diffusion Training Programs.* USOE OEG 1-7-071018-4501; and Clark, David L., and Hopkins, John E. *Roles for Researchers.* Cooperative Research Project No. X-022.

historical preoccupation with the training of either researchers or practitioners. For years we have produced only these two types of personnel in education and at the same time have complained bitterly about the ubiquitous research-practice gap. We have failed to see that this gap cannot be closed without the addition of educational middleman or engineering roles. Education's traditionally favored model — business and industry — has known for years that a middle level of developers or engineers is needed to link research and practice or knowledge production and knowledge utilization. The Bell Telephone system is an example.

Bell has researchers and scientists on its staff, and very good ones. It also has a multitude of practitioners — foremen, linemen, installers, operators, and so on. But it does not expect its practitioners to utilize the output of its pure scientists in direct applications. Nor does Bell suggest that its researchers seek applications for such scientific discoveries as the transistor. Bell is pleased to have its scientists and researchers grind out basic findings. It probably would consider the use of a top scientist in the development of applications as a waste of his time, diverting him from that which he does best to that which he could do but poorly.

What, then, does Bell Telephone do to bridge the gap between research and practice? It has set up a vast enterprise known as Western Electric which has as its unique function the development of research findings into applications and devices which the various Bell systems will install and use. Within the Western Electric system we find engineers who concentrate on development and invention of prototype applications of scientific knowledge. We find design and testing specialists who are concerned with the debugging and production-development of these prototypes. We find production and sales specialists who produce and distribute the new devices, and specialists who train people to use them. In short, we find a large coterie of engineer types who effectively bridge the gap from research to practice.

Where is the analogue of this system in education? There is none. Industry recognizes that it requires much more money to develop an idea or scientific finding than it does to produce the idea in the first place. But nowhere in education do we devote resources of significant magnitude to engineering and development. We do not support projects which devote $500 million to the development of an *idea* which may or may not work out, but Lockheed Aircraft Corporation recently dropped this sum in developing prototypes for the supersonic transport.[12] As you probably know, Boeing got the contract.

We do not have the trained personnel we need to effectively plan and implement change in education at any level, from national to local school district. Nor are we likely to get them for quite some time. But what are practitioners to do in the interim? We hardly can afford to just wait. About all we can do is to make a greater attempt to "grow our own," to provide training opportunities for individuals on our present staffs even though it is certain that such opportunities will be hard to come by. Such training might be a combination of on-the-job experience in change programs coupled with some in-service and selected university-level formal training efforts.

In addition to finding and providing training opportunities for our change agent staff members, provisions must be made to create full-time positions of responsibility for educational change and engineering. Change is important enough, occurs frequently enough, and is difficult enough to control in contemporary educational agencies that it should not be made the responsibility of volunteers or of personnel who have full-time responsibility in other areas. If we are serious about changing and improving our schools and other educational agencies, we must be willing to enable some members of our staffs to give their undivided attention to the problems and processes. This means giving them the authority to make some decisions as well. Typically, the superintendent, principal, or personnel responsible for change programs does not or do not have the time or inclination to nurture them. Thus, the programs proceed and grow by fits and starts (they are administered on a crisis basis) with disappointing results. If we continue to try to change and improve education in this manner, we have no right to expect more than mild successes. We should, in fact, expect a majority of colossal failures.

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[12] *Time*, September 22, 1967, p. 96.

Tools and Strategies

Finally, I have claimed that we lack the tools and strategies through which educational improvements may be effected. A number of examples could illustrate what I mean, but I will try to make my point with two. Two very important steps in the process of change and improvement are *diffusion* and *evaluation*. At the level of practice we have progressed very little in these areas in the past ten to twenty years. We handle them much as they have always been handled, that is, not very well.

Consider the process of diffusion. The finest research, the most innovative solutions to practical problems, the best packages of materials can have no effect on practice if they are not diffused to the level of the practitioner. Obviously we cannot hope for any considerable improvement in American education unless we also pay a great deal of attention to the process of diffusion. But what are our major diffusion methods?

We continue to rely on the "better mouse trap" approach. That is, we assume that if we have a better product and we just tell people about it, they will beat a path to our door. This method does not work. Commercial firms know that it does not, but we in education apparently have failed to learn this.

Or we use the "each one reach one" method, in which one person is supposed to accept and use an innovation and then become a "product champion" for it, to spread the good word to his friends and colleagues. This diffusion method does not work very well in chain letters or in organized religion, but we continue to have faith in it.

A third diffusion method which is very popular in education is the demonstration. The new product or idea is shown to practitioners in some sort of contrived or special situation. The observers and potential adopters are supposed to view the demonstration and then go and do likewise. We have failed to recognize that such demonstrations are not very compelling to those who view them, simply because they are rigged or atypical. The viewer sees a specially contrived situation which *always* works. What he does not see is the groundwork which went into producing the demonstration, the efforts and costs that were necessary to make it work, and the problems and difficulties that had to be overcome to debug it. Of course, this is precisely the information the potential adopter needs and wants in order to make a decision about the feasibility of the innovation in his own situation.

Now, there are a number of ways in which diffusion of ideas and knowledge about new practices can take place. Diffusion can involve the techniques of telling, showing, helping, involving, training, and intervening. It can also incorporate certain strategies which are based on perceptions which the diffuser holds of the potential adopters. For example, the adopters can be viewed as individuals who are convinced or motivated by rational arguments, by value-based arguments, by political, authoritarian, or economic forces, or by psychological arguments, to mention a few. Thus, we have a large number of possible combinations of *techniques* and *strategies* for use in diffusion efforts at all levels of education. But seldom do we take advantage of these possibilities. We invariably rely on one basic strategy, i.e., we have one image of the potential adopter—that he is motivated solely by rational-scientific evidence. Further, we rely to an overwhelming degree on the techniques of telling and showing. As a result, the vast majority of our diffusion efforts take the form of written or spoken descriptions of scientific or research evidence which indicates that a new "good thing" has been discovered and is now available for adoption. Because we are bombarded with so many diffusion messages of this kind, their impact is slight.

This lack of attention to the processes of diffusion, and especially to the difference between *techniques* and *strategies*, leads to a number of difficulties that beset the would-be diffuser. I can summarize their general nature as follows:

1. Diffusers tend to focus on the means or techniques of diffusion and fail to consider the nature of the potential adopters. Thus, for example, we have administrators who attempt to get staff members to adopt a new innovation by telling them the rational-scientific facts about it when, for this particular group of teachers, he should be stressing value patterns.
2. Diffusers tend to base their diffusion efforts on the methods or techniques most readily available to them. The first question they consider is, "What techniques can we use to reach the greatest number of potential adopters at the lowest cost?" The questions they should be asking first are, "What is the nature of the audience we are trying to reach; what motivates them?" and "What techniques are available which have the greatest likelihood of reaching this audience?"
3. Diffusion strategies are typically determined with no consideration about the condition in which the diffuser wishes to leave the adopter. Usually the only con-

cern held by a diffuser, whether he is at the national or school district level, is the promotion of a particular innovation. He very rarely considers "next time." Thus, he may well leave the adopters with little residual propensity to adopt again.

Evaluation is the second example of an area in which the tools and strategies for change and improvement are desperately lacking.[13]

The traditional theory and methods of evaluation have failed educators as they have sought to assess the impact of innovations in operating systems. For decades the evidence produced by the application of conventional evaluation designs has contradicted the experiential evidence of the practitioner. Despite the nearly uniform neutral evaluation results[14] produced by traditional methods (i.e., the ubiquitous "no significant difference"), innovations and practitioner faith in the power of innovation have persisted in education. This is so simply because educational decision makers have placed credence in the "nonscientific" evidence of their own observations and those of teachers, students, and parents and have rejected as untenable the evidence of traditional evaluation methods.

When the evidence produced by any scientific concept or technique continually fails to affirm experimental observation and theory arising from that observation, the technique itself can appropriately be called to question. This is precisely the challenge which now needs to be directed toward traditional concepts and tools of evaluation and measurement in education. Even a cursory examination indicates that classical evaluation designs and tools are built upon assumptions inappropriate to the real world of educational practice. While experimental designs must insist on rigorous control, innovative operating systems must insist upon flexibility and change. While classical techniques employ product measures, innovators and decision makers in operating systems need process data.

This argument is not to attack classical evaluation theory or design but simply to note that:

1. Experimental design may have less relevance for evaluation requirements in American schools than for the research laboratory.
2. Classical evaluation techniques may be less appropriate in operational settings than are the techniques of operations research or quality control evaluation systems.
3. Available measuring instruments derived from psychological theory and centered upon product measurement may yield incomplete evaluative data.
4. Tools and techniques which assume that the unit to be measured is the *individual* may be out of focus with the learning and behaving units employed in the school.

Currently, however, these are hollow challenges. Evaluators can function only with extant theory, concepts, designs, and tools. Until a substitute theory is devised which has the same firm academic base now existing for experimental design, it is not a viable alternative for the evaluator. Available measuring instruments may not sample the processes or even the products of most interest to the evaluator, but they have a compelling feature—they are available.

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[13] The comments on evaluation are adopted from Guba and Horvat, *op. cit.*, pp. 94-97.

[14] The failure of traditional evaluation modes is most evident in the persistence of *neutral* findings. It is difficult to believe that all treatments devised by educators are in fact equally potent (or impotent).

The primary task in educational evaluation today is the provision of sensible alternatives to the evaluator-practitioner. The practitioner needs evaluative tools which will enable him not only to make retrospective judgments about the value of a particular change or innovation which is being tried but to make decisions about (and modifications in) the innovation while it is being implemented. In addition, the practitioner needs evaluative tools which will enable him (a) to make decisions with regard to the areas within his system which are in greatest need of change and improvement, and (b) to select the most promising innovations for his system from among the many available. In short, the practitioner-evaluator needs tools which will enable him to conduct context, input, process, and product evaluations.[15]

The next logical questions is, "What can we do while we are waiting for these new evaluation tools to be developed?" This is a good question to which I have only a poor answer. Obviously, we cannot afford to wait for the new techniques to be developed since we have immediate needs and requirements. We must use the tools that are available right now, including traditional experimental designs. I can only suggest that experimental evaluation techniques probably are not going to be of much help in our decision-making functions. Let us use the techniques when we must, expect to gain findings of "no significant difference," recognize that "no significant dif-

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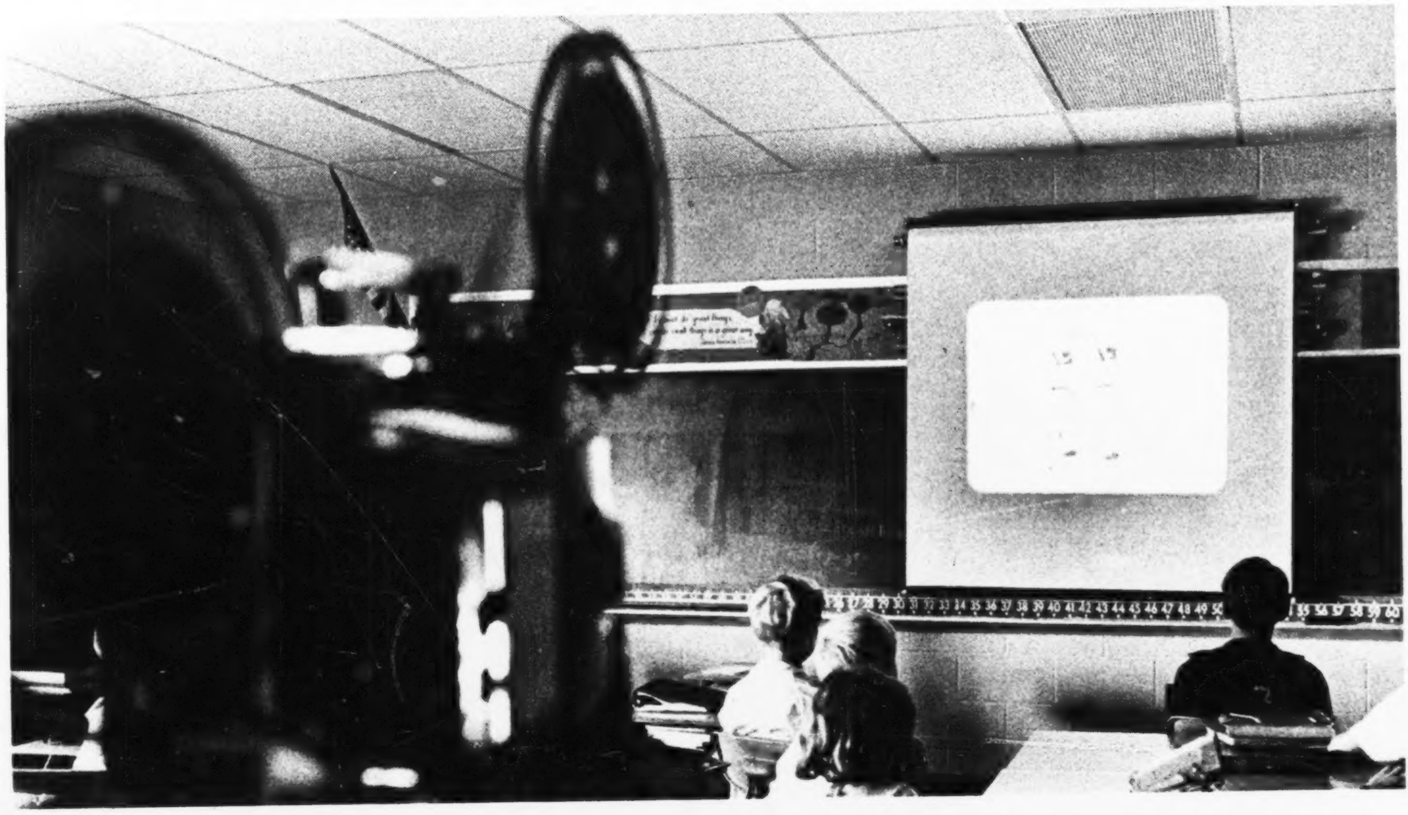
[15] The writer is indebted to Daniel Stufflebeam of the Evaluation Center, School of Education, The Ohio State University, for the concepts of the four classes of evaluation suggested here.

ference" does not provide information for decision making, then rely on the other kinds of evidence that can be collected to help make our decisions. Case studies, records of observations, testimony of the people involved with a new program, and other evidence of this type may not be scientifically respectable, but it is often the best information available. It will at least give us some basis for making the important decisions that must be made. These kinds of evaluative data do not possess research-level reliability, but they can be convincing and useful if they are gathered with care and precision.

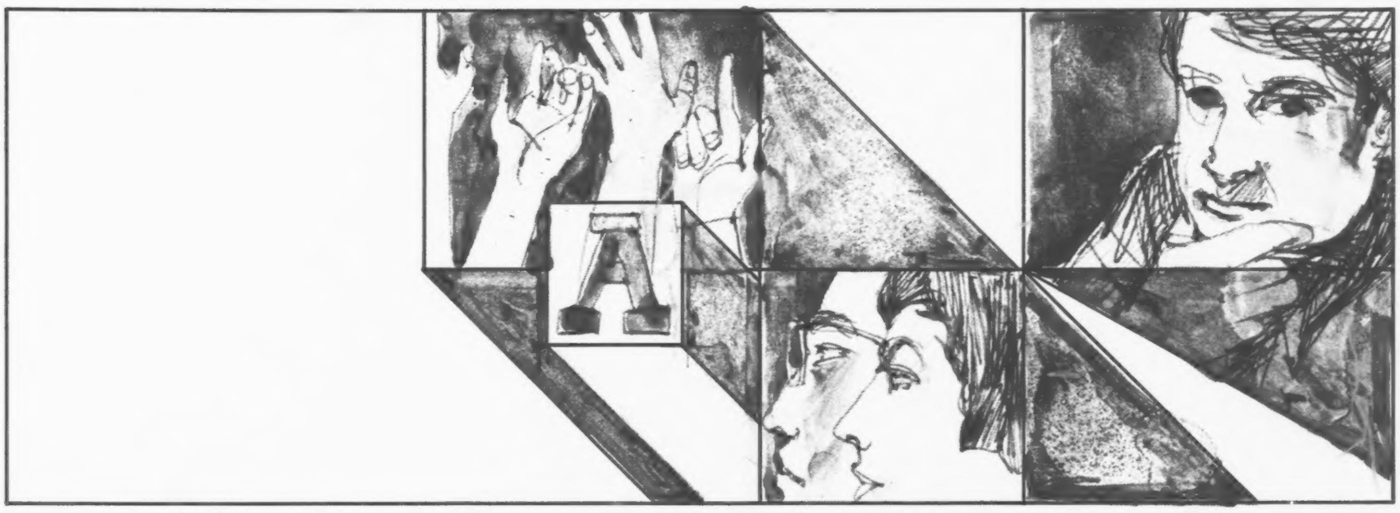
Conclusion

While most educationists are sincerely and professionally concerned with change and improvement, there is currently a trend toward a great deal of change for the sake of change. Too often our changes, when they get down to the level of operation in real schools, are superficial or apparent rather than real and lasting. Change is one of the new "sexy" areas in education and, as is always the case with such areas, there is a definite bandwagon effect. The area of change has developed a host of new "experts," and at the same time it can claim to have no real experts at all. Too much is yet to be learned about the process of change and improvement for anyone to claim expertise.

I think we can agree that change and the control of change are vitally needed elements in modern education. At the same time, we must be alert to the perhaps trite but nevertheless valid fact that educational improvement necessarily implies change while educational change does not necessarily imply improvement.



A POSSIBLE DREAM: 109
A NEW EDUCATION AND NEW MODELS OF TEACHERS



Roy A. Edelfelt ■ Executive Secretary ■ National Commission on Teacher Education and Professional Standards ■ National Education Association

The concept of "The Teacher and His Staff" and the prospects for major changes in teaching under the Education Professions Development Act (P.L. 90-35) make a possible dream of the notions which were central to two other TEPS themes — the concepts of "The Real World of the Beginning Teacher" and "Remaking the World of the Career Teacher." Although all old business in the improvement of teacher education and professional standards is far from complete, it is time to increase our attention to the more pervasive business of remaking the teaching profession. One way to begin is to try to analyze aspects of our culture which are relevant to education, predict developments, and anticipate the sort of education needed to serve our people now and in the future.

Even the wisest analysts and prophets are uncertain and wary when they try to interpret social developments and forecast directions which education might take. Making predictions about the teaching profession will be even more precarious, but it is necessary for some educators, however small a group, to get started. My purpose here is to help them do so, to invite bold, creative, and critical discussion and thought. I will illustrate one kind of analysis which might be worthwhile, suggest the changes for education and teachers which seem to be implied in the analysis, and finally, pose questions which seem appropriate if action is to follow talk.

The Need for a New Education

Educators operate on tacit and habitual assumptions about schools, learners, and society. Many such assumptions are no longer valid and some need new interpretation, but they still dominate educational thought and action, thus perpetuating outmoded ways of doing things which can be diametric contradictions of known facts.

Educators must engage in a vigorous dialogue to identify and examine their assumptions about schools, learners, and society and develop new understandings about what schools and teachers should be. Following are illustrations of the kinds of assumptions which might be challenged and some related ideas which could lead to very different conclusions about education.

Roy A. Edelfelt

1. A twofold assumption is that the purposes of education are to pass on accumulated knowledge and conventional wisdom and to train the young in certain selected skills, and that the responsibility for such education rests primarily with the school. People assume that educators know what should be taught and that teaching it will result in learning, and that the most important learning takes place in school. The assumption is no longer valid. The purposes and sources of education are much broader than they used to be.

Education designed to pass on the heritage of man from one generation to another may have been valid in times past when conditions of living were fairly similar for successive generations. But it is no longer appropriate in a time when conditions change so rapidly. The teacher cannot merely remember what life was like when he was in school and assume that youngsters now are having similar experiences. Childhood and adolescence today are different from those periods of life just a few years back. We need to find new ways to identify with the problems, thoughts, and feelings kids have. And youngsters today learn so much outside of school that formal education no longer can claim credit for the major part of learning. There is an urgent need, therefore, for educators to devote more time to helping students learn how to learn, to conduct inquiry, to study independently, to make choices and decisions, to know themselves and others, to use technology, to live with change, and to become agents of change.

2. A second assumption no longer valid is that a free society develops with little or no planning. When the United States was a young, rapidly growing country, haphazard development may have been inevitable; but in a well-developed society with an ever-increasing population, it would be chaotic to depend merely on the desires of individual or group enterprise, whether in business, education, industry, or social development. A balance between planning and evolution is needed, a balance which provides more planning than we have had in the past and the flexibility necessary for creative evolution.

3. Another questionable assumption is that our societal organization has become static, that having progressed from an agrarian to an industrial, technical, and business society, we have reached the ultimate organization.

Support for a static or ultimate system of political, economic, or social organization is often fostered by appeals to patriotism or nationalism and to muster opinion against other isms, primarily communism and fascism.

A profession devoted to scholarship and objectivity in a society committed to democracy and rational thought can hardly permit acceptance of notions which crystalize system and organization prematurely. We must continually employ new knowledge for the welfare of people. We now have the technical, business, and industrial know-how to support a more humanistic society. Today's emphasis on producing goods and services, making more money, and building better machines need not persist. Developing better people, building better systems of living, making life more fulfilling and rewarding could become the primary goals.

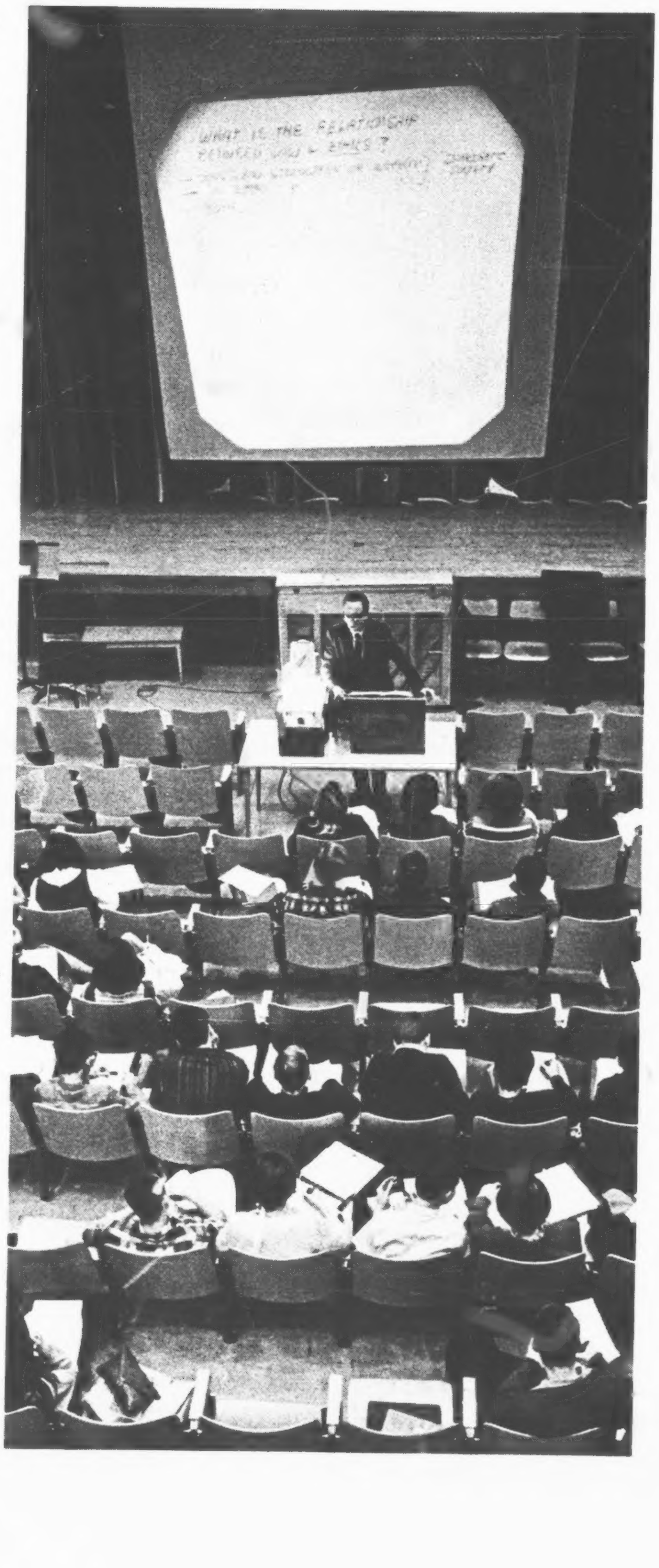
4. Still another outmoded assumption is that puritanic mores and traditional modes of human behavior remain eternally valid and should continue to be perpetuated without much examination. Children are asked to abide by rules of behavior which are often not based on reason. Too many of these rules are advocated because they are the proper or traditional thing to do. More viable standards would derive from an examined, rational, pragmatic approach to human behavior. Rules should be based on reason and humanness and be able to withstand continuous testing against current interpretations of values and recognized examples of effective behavior. This should not suggest a sentimental, permissive, or coddling approach but should permit the young a broader encounter with real problems and consequences of life at the student stage of development. It means providing opportunities for youngsters to shape the rules and standards they live by. It means recognizing that the sociology of groups — that is, the roles parents, children, teen-agers, teachers, and others play — has changed and is changing. Standards of behavior, relationships, and responsibilities of all parties in the preadult's world are constantly shifting. To avoid chaos and confusion there must be some attempt in each subgroup to agree, at least tentatively, on guidelines and understandings of acceptable behavior, but they cannot be crystalized. The balance between no rules at all and overly rigid standards is difficult to achieve, but in this time of continuous change, it is essential.

5. There is an old assumption that subcultures within our society can be categorized into urban-suburban-rural or upper class-middle class-lower class and that the people who live in these communities or groups have

unique characteristics and distinctly different problems. An obvious need is a more cosmopolitan, national, and world concept of society. We live on a planet where communications are instantaneous, where people know a lot about each other, and where there is a great interdependence of people. What the individual does, whether he lives on a farm or in the city, at home or in a distant land, may directly affect other people who live miles or nations away.

Although we live in a stratified society, there is a tendency to overgeneralize about categories of people in terms of education, cultural sophistication, wealth, color, religious convictions, and political ideologies and to judge them by what they have and who they know rather than what they are. The willingness to overgeneralize and to support a closed system is inconsistent with American ideals and stifles progress. If pronouncements about freedom and equality are to have meaning, we need to promote a more heterogeneous, open society where an individual is judged on how adequately he fulfills his own potential and what he contributes to his fellowman, not on what position he has or what degrees he holds or what color he is.

6. Another out-of-date assumption is that careers develop along planned, predictable lines. Too often it is assumed that a person begins work in a particular field and stays in that field, that progress in a career is linear and follows a known sequence. Most careers today are not predictable; the trend is for them to be less so. A career, even life itself, must now be viewed as a flexible developmental sequence in which a person may start out with particular goals but move easily into many careers, some seemingly unrelated. This will be possible because the intelligent, well-



educated man is able to learn what he needs to know, within limitations, about a new job. It will occur because some jobs are so new that formal preparation programs have not yet been developed for them. The first people in a new career must find their own way. The self-prepared will become much more commonplace, both because of rapidly developing new fields and because of the adaptability of people in a high society.

7. The traditional assumption that people are largely immobile and provincial no longer holds. People may be provincial, but much of provincialism is superficial, such as allegiance to sectionalism (Californians or New Englanders) or snobbishness as part of an in group. Ours is a national society. Much of life is national in scope. Mass media make information widely available. Almost every community has its cosmopolites. And people are certainly not immobile. The trend is clearly toward more mobility and sophistication. People will be (or should be) citizens of the nation and the world, even the universe. They must also relate to and take responsibility in the local community. The questions "Where do I belong?" and "To whom do I have responsibility?" need new answers in a highly migratory society in which few people belong to only one community. Old patterns of earning or seeking status, acceptance, and power within communities are changing, especially in new communities. The ramifications of great mobility, shallow roots, and the problems of adequate cosmopolitanism are interrelated. Though his vision is wide and his ability to travel is great, man must still have an effective relationship with and a recognized responsibility for his fellowman. What this can mean for the highly civilized American nomad is far from known.

8. Another outdated assumption is that hard physical work is righteous and good; that to be virtuous, work must be tough and distasteful; that work is easily discernible from play. Within this concept people are paid for the amount and quality of goods produced. New concepts of work will not necessarily equate production to compensation but may recognize accomplishments of other kinds. The person who must experience hard work or feel guilty will need reorientation. More than education of the current sort will be needed. Many attitudes about work have deep psychological and religious underpinnings. Changes in attitude will need to be developed through a pragmatic kind of thinking about accomplishments being assessed in a variety of ways. For example, it must be legitimate to regard reading a book or going to a concert as work. Such activity may be as important and require as much effort as any other kind of activity. A broad concept of work must recognize people developing in a fuller "culture." In early America most of the people were largely "uncultured" in the sense of not being conversant and sophisticated in the arts, music, literature, and philosophy. Americans are changing. There is now the prospect of a mass "culture," hitherto undreamed of, where most people live a full life, creating as well as consuming.

9. Another traditional notion is that procreation is by intention or accident, that people bear children because they want them or feel a responsibility to perpetuate the species, or that people have children by mistake. The world is becoming so heavily populated that more rational thinking about procreation seems inevitable. It also seems sure that choices in love and marriage have been based for too long on Hollywood-created

myths about romance. The population explosion makes it timely to explore and consider the welfare of prospective people, to consider the possible use of science and medicine both in seeking suitable marriage partners and in producing the best offspring. Sex drives should not determine who and how many are born. Intelligence and morally acceptable behavior must become more related. When decisions such as these can be made, the individual and common good as well as civil and religious codes of behavior must be considered. Marriage partnerships and births should not be left to happenstance or accident or shotgun.

10. Still another time-honored notion is that childhood and adolescence are preparation for adulthood and magically at age 18 or 21 a person becomes an adult. One basis for this is religious doctrine; another is tradition based on false assumptions about the human babe and child. When a child is regarded as "by nature sinful and unclean," adults see to it that he is carefully indoctrinated and molded so that basic instincts can be overcome. When children should be seen but not heard, there is usually little understanding of childhood or there is adult selfishness for peace from children.

It is now clear that life is a long period of gradual development, that the human being is influenced strongly by his environment, and that innate abilities exclude values and attitudes. It is also clear that if initial development does not take place, much of what a youngster should learn during his early years cannot be compensated for or developed later.

11. A final assumption, for this paper, which needs to be changed is the notion that essentially the same schooling is appropriate for boys and girls. Teachers and parents recognize the differences in boys and girls, yet nothing much has been done in school programs to provide for or capitalize on these differences. Recently the pressures to impose specific cultural roles on boys and girls seem greater. Boys typically are expected to be more aggressive, independent, and nonconforming, to dissent and question. Girls are expected to be submissive, dependent, and conforming, to please and support teachers and other adults. Boys more often than girls are discipline problems. Attitudes about masculinity and femininity influence interest and performance in school to the point that some subjects are actually seen as feminine or masculine. Girls on the average make better academic grades in junior and senior high school than boys, yet boys score as well as girls on achievement and IQ tests and more boys than girls go to college.

The need is acute to give special attention to and at times challenge imposed cultural roles and adult systems of control. An example of the alienation of both boys and girls is the hippie movement, which stems from overcontrol and the inability of adults to communicate with the young, and vice versa. If preadulthood is to be a desirable, respected period of life during which growth and development are fostered, encouraged, and tolerated, changes are in order in school programs and in approaches to instruction.

These assumptions, although not comprehensive, serve to illustrate some of the kind of thinking which is needed to bring about a new sort of education. It is not always possible to draw implications directly, but the identification of outmoded assumptions provides background for thinking about new concepts of education and possible new models of teachers and teaching.

A New Education

A new concept of education will go well beyond the school. Education under school auspices and in other community agencies will provide greater scope, more facilities and resources, and more reality in learning. It will capitalize on all of the agencies and people who contribute to learning and education. The existing emphasis on abstract concepts and vicarious experience will be enlarged, because some youngsters have insufficient experience to deal with abstractions and most youngsters need more contact with real things and real people. The new school will have work-study programs to enable students to gain practical experience to which abstract and concrete study and thinking can be related. Study and work for short or extended periods will be arranged out of the classroom and out of the school. Many community, business, industrial, governmental, and other agencies will serve as supplementary learning centers. Youngsters' study programs will be individually designed, based on continuous and careful diagnosis of individual intellectual, psychological, physical, social, and aesthetic growth, and work will add essential responsibility and provide status. Being a student will be recognized as a youngster's work. Education will offer as much or as little planned control of the school environment as necessary. The question of what and by whom controls will be exerted may present some thorny problems, but it also provides part of the basis for deciding on the purposes of education and the new roles of teachers.

The new education will include careful, continuous diagnosis of what a student knows, what he thinks he wants to know, how he learns, what he wants to learn, what he is able and motivated to learn. It will include counseling about alternatives in learning, recognition of various levels of learning, and examination of the degree to which learning has transfer value, is generalized or synthesized.

A new concept of education will help the learner develop an understanding of what learning is, how it takes place for him, how and why it can be or is exciting or dull, challenging or boring, rewarding or a waste of time.

The new education will explore and recognize conditions and attitudes which influence learning. Learning will be based on theories far beyond the simplicity of conditioned-response psychology. The new education will be concerned with how people feel about themselves and how they feel about others and the influence of such feelings on how and what they learn. It will be concerned much more with the effects of physical and mental health on learning and will be seen as oriented to helping people live more effective, productive lives, not merely directed at getting a better job or social position. It will stress individual assessment based on what a person can do. It will provide for internal evaluation but will also use external assessment as cues to what has happened to an individual. One of the focuses will be helping the individual organize his own existential world.

The subcultures of childhood and adolescent life will be used as part of the substance for learning. Study and learning in human relations, interaction, and growth will use the real problems and situations of living (as students). Both real and simulated situations will be employed to apply knowledge and skills from all phases of learning.

Evaluation of student progress will be primarily in terms of behavioral goals. This will include not only the assessment of students' intellectual ability — ability to analyze, understand, interpret, and use what has been learned — but assessment of their performance as members of the school society.

In many areas of learning, particularly where performance goals can be identified specifically, such as in mathematics, typing, spelling, etc., requirements will be in terms of achievement rather than time. For example, the student will no longer be required to take two semesters of geometry or four years of English; he will study only as long as it takes him to demonstrate that he has achieved the specified goals.

Flexibility in all subjects and areas of study will eliminate the school schedule as we now know it. School will not begin and close at the same time for all students. In fact, on some days some students may not even "attend" school in the present sense. Schools, libraries, museums, art galleries, and other locations for study will collaborate by pooling resources to fit the students' learning goals.

Eventually, as the above sources of information and knowledge become readily accessible and as terminals for computer-assisted instruction and computer-stored information become available, the problems of access to data will largely disappear.

The new school will provide all types of materials for learning, including extensive collections of supplementary materials and primary sources which will be available on microfilm, microfiche, and other forms of computer-storing.

Teaching groups will be organized so that both instructional and subject matter experts can be available to make judgments about selecting content and approach in teaching. A variety of noneducators — psychologists, sociologists, social workers, artists, musicians, philosophers, political scientists, and other consultants — will be available on a temporary or part-time basis to work in schools and to help teachers analyze and make judgments about the appropriateness of curriculum and instruction. The selection of learning goals will include much more than deciding what, why, and how to teach. Much more emphasis will be given to creating the conditions under which learning can be fostered through individual study.

These ideas about the school in a new concept of education are far from comprehensive, but they do give some idea about the kinds of people needed to staff schools and about what the multitude of jobs in teaching might be like.

New Kinds of Teachers and New Concepts of Teaching as a Career

Educators in the future will perform a variety of tasks, some of which exist in schools today and many of which will be newly defined as teacher roles are differentiated. Roles will be identified and classified in terms of degrees of difficulty, responsibility, and needed artistry and in terms of background of the people who assume specific kinds of tasks. Role identification and assignment will be supported by a thorough, sensitive guidance program for the professional development of educators. There will be a specially trained staff for teacher evaluation, analysis, and guidance.

The term *teacher* will describe only some of the people who work with youngsters in learning. The concept of "classroom teacher" will refer to only one of the many kinds of teachers. The notion that teaching takes place in a room designated as a classroom with a specified number of youngsters will no longer provide a valid definition of the teacher. Teachers will perform in many roles which may not take place in classrooms as we have known them.

No teacher will be expected to be competent in all situations or with every child. Assignment of teachers and students will be made carefully and purposefully and assessed constantly. Reassignment will be possible at any point in the year.

The teacher of the future will be much more responsible for diagnosing learning problems, developing curricula, creating effective procedures, masterminding the production and selection of materials and media, and contributing to the professional development of himself and his colleagues. The teaching profession of the future will emphasize attracting people "who like to teach." The teacher will be a facilitator of learning; one who is fascinated with helping to dream up ways of learning and thinking; one who is sensitive enough to know when to let the student learn for himself; one who is intrigued by the young, the less mature, or the less sophisticated. Teaching will emphasize artistry and employ a rational science of pedagogy.

Teachers will be assisted by a variety of aides, specialists, laymen, students, and machines. Students will be expected to teach other students, recognizing that there is learning value in teaching.

Teaching will provide many career, temporary, and part-time positions, including advanced standing as a teacher. It will have many possible patterns, some of which will permit teachers to attain seniority, appropriate compensation, and prestige in teaching itself; it will not be unusual for a person to earn promotion without moving into administration and supervision. It will be usual for career teachers to earn up to three and one-half times as much as beginning teachers.

Teachers and other educators will have variety in assignment. Roles will be designed to maintain freshness of viewpoint. The educator who teaches will always be considered a learner. Assignment will be designed to provide sufficient variety so that overconfidence, boredom, and rigid routine in a subject or situation are avoided.

Deliberate efforts will be made to keep teachers from becoming routinized, static, dull, defeated, or stale. Some such measures will be taken within the school system and some will be provided from outside of education. There will be exchange positions for all teachers. There will be foreign, government, and industrial assignments which teachers will take every three or four years for at least a year's time. There will be social work and other opportunities for teachers to become immersed in society so that they can avoid becoming shortsighted and complacent. It will be nearly impossible for them to become staid, rigid, or bogged down in a rut.

The career or senior teacher in the future will be expected to be more than the teacher of today. He will be a student of society, of human development and social history. He will be well informed in psychology, sociology, and social and political sciences. He will be a dilettante philosopher, scientist, social critic, world traveler, and politician. In none of these areas will he be similar to the people who devote their full energies and scholarship to a special discipline, but he will nevertheless not be unsophisticated. He will be a practitioner — one who depends on scholars, who communicates with scholars, who must interpret into action relevant data from these sources.

The teacher of the future will have a high level of academic freedom and will recognize what a profession is, what his role and his rights and responsibilities are, for himself and his colleagues.

Questions About Action

To realize a possible dream for remaking the teaching profession and developing a new, superior quality of education, a great deal must be changed in the present scheme of things. A number of new models have been developed (see "References") and additional models will be developed as the concept of "The Teacher and His Staff" is expanded. New models of teacher education will be created and implemented under U. S. Office of Education funding in the next two years. The following questions are designed to elicit discussion and action in remaking education and the teaching profession:

1. What additional analysis of present circumstances in society needs to be undertaken to anticipate needed developments in education?
2. What key people in education and teacher education should be involved in initial attempts to analyze, anticipate, and predict?
3. How can scholars and social critics be involved to the best advantage?
4. How can new ideas best be shared within the profession and with the public?
5. What steps can be taken to translate ideas into action?
6. What changes in teacher education are needed to prepare teachers to work in schools where staff roles are differentiated?
7. What changes need to be made in certification requirements, salary schedules, tenure practices, student-teacher ratios, local and state financial support, and other traditional procedures to encourage new concepts of education and new thinking about teacher roles?
8. How can the provisions of federal legislation, particularly the Education Professions Development Act, be capitalized?
9. What changes in position and emphasis are needed by professional associations?
10. What can teachers do through local associations? Through other vehicles?

At stake is the future of American education. To dream a possible dream is no small task. To make the dream a reality is a monumental one.

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1:45 - Art
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